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Review Essay

Victor Gray, "European Security Revisited"

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Command and Control: The Essence of Coalition Warfare Anthony J. Rice

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Parameters is a refereed journal of ideas and issues, providing a forum for the expression of mature professional thought on the art and science of land warfare, joint and combined matters, national and international security affairs, military strategy, military leadership and management, military history, military ethics, and other topics of significant and current interest to the US Army and Department of Defense. It serves as a vehicle for continuing the education and professional development of USAWC graduates and other senior military officers, as well as members of government and academia concerned with national security affairs.

From the Editor

In This Issue . . .

Sherman W. Garnett examines the allure that Russia's frontiers hold for its soldiers as he profiles the diverse roles Russian military forces presently are playing in key regions of the borderlands. In the course of his survey he identifies Russian military activities whose outcomes Moscow may not be able either to direct or control.

Paul H. Herbert describes the development potential of the 27 states that gained (or regained) their independence following the collapse of the USSR. His analysis of their potential parallels Sherman Garnett's discussion of inhibitors; both authors identify policy options essential to US and regional security.

David Jablonsky defines and explains the concept and elements of national power, describing how history and culture influence the concept and its application. He demonstrates that even an idea seemingly as difficult to apply as it is to define will yield to determined individual study and research. Strategists, he concludes, must master thinking inside the box before they venture outside it.

David G. Hansen makes a case for policy professionals, in and out of uniform, to reacquaint themselves with the strategic implications of geography. He encourages learning the history of various regions, the range and reach of contemporary geographers, and the importance for security policy of populations, the land they live on, and their access to fresh water resources.

Kent Hughes Butts examines the concept of water as a strategic resource, providing an overview of demand and supply and a description of water as the enabling resource for agriculture, industry, and urban life. His analysis, which covers historical cases as well as prospective scenarios, demonstrates why the study and reasoned application of history are essential to the development of strategy.

Leif Roderick Rosenberger surveys the demand and supply of food in his analysis of the strategic significance of arable land. His wide-ranging study relates a variety of regional problems to a deceptively simple proposition: who has enough food and who doesn't.

Robert G. Spulak looks at a specific aspect of national power, the possession or lack of nuclear weapons. He points out that many who focus only on the risks of possessing nuclear weapons ignore the tangible and intangible benefits to ourselves and others of US membership in the still-exclusive club of responsible owners. He suggests that those who favor US denuclearization have usually overlooked the real-world consequences of such a policy.

Dana R. Dillon describes the Cold War security structures and policies of the member nations of ASEAN (the Association of Southeast Asian Nations) and their evolution since 1989. He identifies new issues, often related to China, that have begun to challenge long-standing regional military structures, policies, and weapon procurement programs.

Frederick Kagan offers a close reading of key documents to support his contention that US Army operational doctrine has abandoned the progress made in 1986 with the concept of AirLand Battle. Army doctrine now under development, he concludes, must decide "What are the most significant problems in warfare today, and how will we solve them to attain victory?"

Anthony J. Rice inquires into the apparent decision of the United States to abandon the concept of unity of command in coalition operations. He analyzes coalitions during this century as well as published and emerging US joint and service doctrine to show how we seem to have given up that hard-won principle in favor of unity of effort.

Review Essay. The review essay by Victor Gray, "European Security Revisited," creates a context for the features on Russia and geopolitics.

Books . . .

The journal receives far more books than can possibly be reviewed; some demand a review, others simply do not justify the space. The challenge arises with those that defy either classification. This discussion covers a number of such books; more space may be devoted to their kind in subsequent issues. Bibliographical data is in the "Off the Press" section of this issue.

- The National Defense University Press recently added a new title to its list of Defense Classics with a reprint of the 1942 version of Sir Halford J. Mackinder's *Democratic Ideals and Reality: A Study in the Politics of Reconstruction*. A new introduction places Mackinder in a post-Cold War context.

- Presidio Press has printed a new edition of the collected writings of Major General Aubrey "Red" Newman (US Army). In three volumes (*Follow Me I, II, and III*), the books once again make available material that originally appeared in *Army* magazine, the *Infantry Journal*, and the *Armed Forces Journal*. At \$15.95 each in paperback, these books could appeal to anyone, officer or enlisted, planning or committed to a career in any of the armed services.

- In 1996 Frank Cass published a study of the underground press in Nazi-dominated Europe entitled *Writing in the Shadow: Resistance Publications in Occupied Europe*. Its author, Harry Stone, describes how small groups in nearly every occupied nation challenged Nazi propaganda and oppression through the illegal circulation of information. His accounts of the consequences of discovery—death for those involved with the clandestine publication and often for many others in the immediate vicinity—appear in chapters with such titles as "The Clerics Go Underground," "The Fanatical Pioneers," and "Planners for Peace." The narrative invokes the mood of a period when Britain's narrow victory over the Luftwaffe, the successes of blitzkrieg, and the seeming invincibility of the U-boats were current events. Knowledge that people went to the lengths described in the book to circulate the truth serves a useful purpose in an age when information flows freely across borders in defiance of those who would curtail it. *Writing in the Shadow* contains many reproductions of the materials they produced.

- The University Press of Kansas continues to issue titles in its series *The U.S. Army War College Guides to Civil War Battles*. To date, five individual guides have appeared: *Antietam*, *Chancellorsville & Fredericksburg*, *Chickamauga*, *Gettysburg*, and *Shiloh*; several others are in preparation. Each of the guides provides a description of the strategic situation, the plans of the combatants, and a chronological tour of the key parts of the battlefield itself. Detailed maps have been prepared to portray dispositions and actions at each of the battlefield "stops" recommended by the authors. These books help the student of whatever age to do three things: get around the battlefield; appreciate the thought processes of the combatants; and examine his or her own concepts of strategy and operations. Each book is amply illustrated with photographs and period drawings and sketches. — JJM □

Russia and its Borderlands: A Geography of Violence

SHERMAN W. GARNETT

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“The internal and economic transformation of Russia has reached a stage where every external disruption could lead to long-lasting disorder in the organism of the state.”

— D. Miliutin

“There is something erotic in everything that happens on the distant frontiers of the Empire.”

— P. Valuev¹

This essay focuses on the Russian military's encounter with the new borderlands. Such an encounter is by no means unique in Russian history. Since the earliest days, Russia's borderlands have been a source of danger, of conquest, of military innovation and disaster. These lands have played an enormous role in shaping the Russian state itself, looming in the earliest days as a threat demanding the full mobilization of Russian society by the state and later as a source of imperial temptation at the expense of internal development. The Russian military's latest encounter with the borderlands is likely to be every bit as decisive as past encounters, for Russian forces are already engaged there and are likely to remain so for some time to come. The borderlands are likely to influence the structure and mission of the Russian armed forces, as well as basic security perceptions, not only of the military, but of the Russian leadership as well.

The new borderlands have arisen on the fragments of the old Soviet Union. This fragmentation has created new military and security challenges to which the Russian military must respond. These challenges include the rise of new nations and new national military forces, the spread of instability and armed conflicts, and the potential interests and ambitions of outside powers in these borderlands. But it is not just threat or necessity that propels the Russian military into the borderlands. The Russian military is there for a number of reasons—the sense of mission, the hope of profit or glory, and the search for power. It is there

because of political decisions which, much more than the wishes of the military, shape Russian strategic policy. This essay is about how the Russian military is responding to both the pressures of the new borderlands and the decisions and interests of the Russian political leadership.

The Emerging Eurasian Military Environments

The Eurasian security environment, like Eurasia itself, is fragmenting in the aftermath of the collapse of the Soviet Union.² The rise of the new borderlands is in fact the rise of multiple military and security environments, not the single or unified region implied in the Russian term, "Near Abroad." Though Russian military weakness has magnified this diversity, its real source lies in the diversity of the new states themselves, their proximity to vastly different regions of Europe or Asia, and their success or failure in state-building, economic reform, and the creation of their own militaries. As the Russian military approaches these diverse borderlands, it must also recognize that their ultimate configuration is unlikely to be something uniform or shaped solely by Moscow.

This state of affairs demands a more exact mapping of the new military environments. As a contribution to this effort, what follows is a consideration of five key aspects of the new Eurasian security geography and Russia's military response to it, namely a consideration of zones of conflict; the hodgepodge of Russian security commitments in Central Asia; Russian force pockets in the western regions of the former USSR; the rise of a Ukrainian Armed Forces; and the future of Russian military forces in Belarus.

Zones of Conflict

This section will consider the interaction between the Russian military and the zones of conflict, particularly in the Caucasus. There is a geography of violence in the former USSR. Its epicenter is the Caucasus, though the conflicts in Tajikistan and Moldova suggest that violence is by no means confined to a single region. The preconditions for violence exist elsewhere in

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the former Soviet Union. One can blame ethnic tensions or outside pressures—and both factors play a role—but the root cause of violence in the zones of conflict is an indigenous political failure, a failure to consolidate a regime that has enough legitimacy and capabilities to defend itself and to hold at bay the forces that seek to destroy it. Of course, the Russian military is not simply a silent spectator to this failure. At times, it has contributed to it. At other times, it has exploited it. The Russian invasion of Chechnya brought new instability to the region. But the vulnerability and perhaps the small size of the states and state structures remain a root cause of violence in the zones of conflict.

Violence assumes a central role in the politics of failing regimes and becomes an accepted means of resolving disputes. Private factions and parties tend to have their own soldiers, as their Western counterparts have their own lawyers and accountants. These non-state military forces include a wide variety of militia, paramilitary structures, and private armies loyal to a political leader, clan, region, or cause. The national army is made up of various combinations of these groups, making them an unstable political coalition rather than a stabilizing factor in the regime. In this atmosphere, a small amount of force can go a long way. In Azerbaijan, the current Prime Minister gained his office by overthrowing the elected President. He accomplished this feat by threatening Baku with a few thousand soldiers. The indigenous units sustaining conflicts in Abkhazia, Nagorno-Karabakh, and Tajikistan are small and lightly armed by the standards of forces once arrayed along the Fulda Gap, yet there is little prospect that the tyranny of violence can be overcome by the rise of a military and state power that would overawe the various factions.

This array of irregular forces produces a violence that is persistent, fast-moving, and fast-disappearing. The military units that dominate the scene are well-formed one day, yet melt back into the civilian population the next. To distinguish them from their historical counterparts in the novels of Lermontov or Tolstoy, they possess at least small amounts of relatively modern conventional armaments, “privatized” from Soviet units that were disbanded or withdrawn.³ Their possession of these weapons guarantees that the present conflicts will be bloodier than those in the past. These weapons—along with the traditional advantages enjoyed by guerrilla forces—increase the staying power of these forces vis-à-vis traditional armies, particularly demoralized ones like the Russian army. Though these small units may appear amateurish, ill-equipped, or ill-trained in the use of modern equipment, they are perfectly suited to the emerging military environment in which they act.

The effect of these conflicts on the surrounding security environment is quite clear. Regional conflicts are the enemy of political and economic stability. States in the midst of disintegration, civil strife, ethnic conflict, or small wars with their neighbors are unlikely to be vibrant democracies or economic success stories. Moreover, these conflicts impose military burdens even on disinterested neighbors, drawing scarce resources away from political



Figure 1. Russia's New Borderlands.
(Commonwealth of Independent States shown in white.)

and economic reforms to the military and security spheres. To an interested neighbor with forces deployed on their territory, these states inevitably exert special pressures.⁴

In a political environment in which force is all too common, Russian forces are a potentially critical factor in the success or failure of local factions. Russian soldiers possess the power to stabilize or destabilize regimes. It is difficult for such units to avoid being drawn into a conflict, whether by material inducements, honors, or even the impossibility of staying out of the line of fire. This gravitational pull on stationed Russian forces applies whether or not there are additional pressures from Moscow to shape, or at least take advantage of, a conflict. All too often, these pressures arise, perhaps not with the first shots, but later when Moscow can seek to exploit the fighting. In Georgia, for example, Russian military pressure led to a number of concessions on long-term basing rights for Russian forces and the return of Georgia's entitlement under the Treaty on Conventional Forces in Europe (CFE) to Russia.

The Russian military has a long tradition of involvement in little wars on the edge of the empire. This tradition has at times had a positive effect on military innovation and reform. The military reforms of the 1860s-70s originated at least partly in the theater-reforms carried out in the Caucasus by Dmitri Miliutin and his commanding general. Yet, more often, this military involvement engendered an independent and imperially minded set of officers,

like Cherniaev, who tried to carry out their own foreign policies in Central Asia (and, in the case of Cherniaev, in Serbia as well). In a more recent period, the rise of the so-called *Afghantsy* in the Soviet (and later the Russian) military reflects the influence of the frontier conflict in Afghanistan. The influence of this peculiar mixing of the military and a violent frontier has undeniably been a key ingredient in shaping the Russian military past.⁵ It is also likely to play a considerable and contradictory role in the Russian military future.

For the military and state budgets, these conflicts are a long-term resource drain. The most likely scenarios, particularly given the current state of the Russian army, are those of stalemate and guerrilla war. In the Caucasus and Central Asia, no real rival army appears capable of arising from the states themselves, nor is one likely, in the near term, to intrude from the outside. Yet, even in an environment of "low-intensity conflict," Russian forces are likely to be engaged for years. Financing the war in Chechnya proved more manageable than many first feared, but financing two, three, or four little wars over a decade is a real financial burden directly affecting not only the allocation of scarce defense resources but the larger state budget as well. Furthermore, even if the budget burdens are manageable, the current Russian army has only so much equipment and personnel. The conflict in Chechnya, for example, used up surplus equipment, fuel, and supplies faster than they could be replaced. It also stretched existing personnel resources to the limit, bringing reinforcements from as far away as Vladivostok on the coast of the Sea of Japan.

At the unit level, these conflicts pose a real danger to military morale and cohesion. They are dirty little wars; few line officers or enlisted men are likely to receive glory or profit from their service in them. Press reports from Chechnya documented the low spirits, drug use, and atrocities that follow demoralized units like Banquo's ghost.

However, long-term military intervention creates a different momentum among senior military and political leaders toward imperial and quasi-imperial forms of control. The local commander's interference in local politics creates an opportunity for out-and-out control. In the past, the military's control of a region has led to *de facto* or *de jure* loss of independence. The Russian military's intervention in Abkhazia created opportunities for Moscow to win concessions on military bases, Georgia's share of conventional weapons entitlement under the CFE Treaty, and other "integrationist" steps. Though some argue that Moscow intended such a policy from the very beginning, Moscow would not have been able to press its agenda without local Russian military involvement in the Abkhaz conflict.⁶ Ultimately, whether intended from the outset or not, involvement in one conflict clearly produces tendencies to exploit the fruits of that involvement. And, at least in the Caucasus, the geographic and political links between conflicts lead the senior military and political leadership to see the strategic need for a regional strategy, rather than selective intervention in one or another of the conflicts.⁷

Finally, there is also a danger that, in an army under stress, officers schooled in the rough-and-tumble of the borderlands will carry acquired habits of political interference home to Moscow. The figure of General Lebed is already a canonical example, but a greater danger probably arises from conspiracies of individuals and groups still unknown that will take advantage of the military's weakness as an institution to pursue their own agendas. The fragmentation of the military removes important restraints throughout the system, not only on the frontier. A broken army is more likely to breed Decembrists or provincial warlords, not dominate leadership decisions.

The Central Asian Hodgepodge

Russian military involvement in Central Asia is a hodgepodge of deployments and security commitments with important long-term consequences for the Russian military. The hodgepodge is the result of the accident of existing deployments, improvised responses to the fall of the USSR and the outbreak of conflict in Tajikistan, and political decisions by the Russian leadership. It reflects the military side of the increasing Russian political commitment to deeper integration on the part of the new states of the former USSR. Yet, though in theory integration seeks to bind all states in the region, in practice Russian engagement—security and military—is likely to have unequal effects.

The hodgepodge of commitments begins with the conflict in Tajikistan. This conflict not only threatens the internal stability of the country, but has a regional dimension with its spill-over into Afghanistan. The support of one or another warring parties in the conflict by various Afghan factions, Iran, Uzbekistan, and Russia recalls old-fashioned geopolitical frictions in the region, but by no means yet on a scale of the "Great Game." The Russian leadership has made a series of commitments to defend Tajikistan's borders.⁸ Russia reinforced the 201st Motorized Rifle Division as fighting in the Tajik conflict worsened and the division became more involved. It continues to man former Soviet border posts with Russian border troops, who are regularly fired upon and have suffered casualties.

But Russian involvement also includes strong political and security ties with Turkmenistan and Uzbekistan, as well as a proposed "military union" with Kazakhstan. No effort is being made to create a real military border between Russia and Kazakhstan, given the high costs associated with the installation of barriers and border posts, as well as the deployment of border guards and other military assets.⁹ This pattern of engagement—including the participation by four of the five Central Asian states in the Tashkent Agreement on Collective Security—means that Russia has decided to deal with potential problems of instability in the region by forward-deploying its scarce military assets there.¹⁰

It might well be argued that this approach in Central Asia is cost-effective for Russia, particularly if this small-scale engagement deters a serious

outside competitor like China. The emergence of China as a great power is occurring simultaneously with Russian military and political weakness. This weakness in turn deprives Russia of levers for managing the growth of Chinese power, already manifested as economic and demographic pressures on the resource-rich, underpopulated Russian Far East.¹¹ Some Russian military analysts are concerned that Russia is in no position to manage the frictions to come.¹²

Russia's small-scale military engagement in Central Asia is also cheaper in the near term than massive outlays to erect a real border and other military structures on the Russian-Kazakh line (or any other line between Russia and the old Soviet border in Tajikistan) and withdrawing from what is outside this new line. Finally, these Russian deployments—thin as they are—are enough to dominate indigenous national armies. Even where these armies seem to be relatively large on paper, such as Uzbekistan, Russian influence remains strong through the overwhelming presence of ethnic Russian officers.¹³

However, the management of this hodgepodge in Central Asia presents real problems, the most serious of which is the military's overcommitment. The Russian leadership has not provided material resources commensurate with its strategic commitments under any but the most favorable circumstances. Over time, the Russian forces-in-being are unlikely to be able to respond to expected challenges to Russian interests, even without the emergence of a true geopolitical competitor. At times, the elements of a real debate have emerged over Russia's role in the region or in conflicts like that in Tajikistan. This debate views military involvement in the borderlands as a great distraction from Russia's more serious security problems and challenges. Though this school of thought is unlikely to counsel withdrawal, it is likely to exert influence to prevent Central Asian commitments from becoming an abiding or expensive military preoccupation. The hodgepodge of commitments must be maintained on the cheap.

But local pressures for more resources will continue. The most obvious pressure on existing resources is the conflict in Tajikistan, where Russian commitments are only likely to increase. The Russian military is now the power supporting the current Tajik government, but these forces are not strong enough to put a halt to the civil war nor to seal off the border with Afghanistan. Russian military and border troops in Tajikistan are thus in for a long period of "frontier warfare," reminiscent of the difficult conditions faced by the Russian army of the past century but unlikely to end anytime soon with the same assertion of Russian control.

Russia must also be concerned about future conflicts of this type. These conflicts could arise from border disputes, or the breakdown of order in existing regimes, or simply as spill-over from the escalation and fragmentation of Tajikistan itself. The commitment already made in Tajikistan and clear security commitments to the other Central Asian states, both bilateral and through the Commonwealth of Independent States (CIS), make it unlikely that the Russian army would remain aloof from these conflicts. Thus, the extent of

Russian involvement in Central Asia could very well grow out of a slow-but-steady "mission creep," a continuous response to one emergency after another, without time for a more dispassionate review of Russian interests, capabilities, and options in the region.

To add to Russia's problem, not one of the states of the region is capable of sharing any of the fiscal or military burdens with Russia. The most obvious example is CIS peacekeeping forces in Tajikistan, where other CIS leaders have offered only token forces of dubious quality to an ostensibly multilateral effort. While Uzbekistan has tried to play a central political role in management of the Tajik conflict, it has done so with little effect on the costs Russia must bear. In this and other cases, Russia must inevitably foot the lion's share of the bill, provide the bulk of the military equipment and forces, and suffer most of the casualties. Costs incurred here inevitably take resources away from force modernization and other programs designed to meet challenges already visible beyond the new borderlands. In the near term, these conflicts demand manpower and working equipment already in short supply, making involvement in the first conflict the enemy of success in the second or third.

If, for the foreseeable future, Russia's military commitments to the region are likely to exceed its material and military resources there, a second set of problems arises: Russia is forced to make choices over first- and second-order interests and allies. Even though it has exerted the greatest effort in Tajikistan, Russia's long-term preoccupation must be with the fate of Kazakhstan, its closest neighbor, for reasons of geography, resources, and the long and still indefensible border between the two states. The recent agreement-in-principle on a military union between Russia and Kazakhstan is one way of redressing this balance, but in Central Asia, urgent requirements may sometimes be obstacles to addressing the most important goals.¹⁴

Uzbekistan also figures prominently in Russia's first-order interests, but perhaps best illustrates the problems of managing limited Russian military and security assets in the region. Though in the past willing to serve as a surrogate for Russian interests in the region, Uzbekistan also has ambitions of its own. In Tajikistan, though joining with Russia to support the ruling coalition, Uzbekistan supports a different faction from Russia. Because of its size, geography, and resources, Uzbekistan may possess the greatest long-term potential to exert influence of its own over its Central Asian neighbors, taking advantage of future Russian overextension or hesitation to fill the void or at least elevate its status from client state to junior partner.

Russia's long-term management of its military and security relationship in Central Asia will also include relations with Turkmenistan and Kyrgyzstan, though both are likely to be second-tier countries in Russian thinking. The Russian military is likely to find itself in the middle of a number of intrastate and interstate frictions. Between the states of the region, there remain tensions over borders, water, and other resources. Within these states, succession crises

“The rise of the new borderlands is in fact the rise of multiple military and security environments, not the single or unified region implied in the Russian term, ‘Near Abroad.’”

and internal challenges to existing regimes could very well sweep away political and security ties with Russia that have been fashioned over months or years. Russian military presence might dampen some conflicts but certainly not fully control or extinguish them. As in the past, Russia will likely have to use these conflicts and contradictions as a means of control, because it will not have the means to overawe the local competitors. Inevitably, this hodgepodge of commitments will give way to a more differentiated pattern of engagement and control. The competition for resources at home and the problems to be managed within the region compel the military to find a strategy that focuses on core national interests and the best way of using relatively limited military resources to greatest advantage. Even with the evolution of such a strategy, Russia is likely to face a number of setbacks and surprises in the region.

Force Pockets in the Western Regions

In the western regions of the former USSR, the pattern of Russian military engagement apparent in the Caucasus and Central Asia is replaced by different challenges. With the exception of the conflict in Moldova, the west has been a region of military policy, not military interventions. The Russian military has had to complete its withdrawals from the Baltic States and adjust to the rise of indigenous militaries in Ukraine and Belarus, though only the former appears to Russian military analysts as a potential source of friction.

One of the consequences of this pattern of military engagement in the west is the existence of various “force pockets,” areas of large Russian force concentrations in Moldova and Crimea. These pockets represent a challenge to stability because of their military power and their potential to alter peacefully or violently the politics of the region in which they are deployed, with or without the approval of Moscow. In Sevastopol, these forces are also an important element of the local economy. In all three cases, there is a strong connection between active personnel, retirees living in the area, and the local community. Thus, these forces remain an integral part of local life that will not be quickly or painlessly removed.

The security complications posed by these “force pockets” are best illustrated by the case of the 14th Army. In the Soviet Union, the 14th Army was

a low-readiness, reserve structure, barely the size of a full-strength division.¹⁵ The separatist forces in the Transdnister region of Moldova have strong ties to the 14th Army. During a period of active fighting in 1992, elements of the army took an active role in support of the separatists, leading the commander to state openly that he had lost control of his forces. While General Lebed was commander of the 14th Army he restored order to the force, but routinely took a public position of sympathy for the separatist regime in the region.

In the long run, the Moldovan government—even the new President Lucinschi, who ran on a more pro-Russian platform than his opponent, the incumbent President Snegur—would like to see the 14th Army withdrawn. Its removal would deprive the separatist Transdnistrians of an important pillar of political and military support. There exists a Russian-Moldovan agreement on the eventual withdrawal of the force, though the two sides differ about the timing for beginning such a withdrawal. But the real rub is that it is difficult to imagine a withdrawal scenario in which the entire army and its equipment leave the region. The headquarters, commanding officers, and active personnel might leave, but there would be intense local pressure and the active collusion of some in the army itself to leave the equipment behind. Certainly, large amounts of equipment would be “diverted” to the Transdnistrians before the withdrawal. This kind of withdrawal would only reignite bloodshed in the region, with the Moldovan army hopelessly outgunned by the separatists. The current command-and-control relationship between Moscow and its stationed forces in general, and that between Defense Minister Rodionov and the 14th Army command in particular, make hopes for any other kind of withdrawal unlikely. The center simply cannot order and supervise a complete withdrawal.

The force pocket with the greatest potential for creating a serious international problem is the Black Sea Fleet. To date, the tensions within the fleet and between the fleet and Ukraine have been largely dealt with through negotiation or symbolic acts of defiance. But the strong linkage between the fleet and Crimea’s economy, as well as the ideological ties between the fleet and disaffected groups within Crimea’s rather disorderly political process, could well be a harbinger of future problems. What is most dangerous about the Black Sea Fleet in the short run is that, in the absence of a settlement between the Russian and Ukrainian governments over the future of the fleet, the uncertain atmosphere and dissatisfaction among the Russian parties and elements of the population on the peninsula could draw elements of the fleet into local politics. The creation of another “14th Army” in Crimea would have repercussions for the key security building blocks of the region, namely Ukraine’s internal stability and Ukrainian-Russian relations. Given the existing tensions within the fleet, the potential for serious incidents and even violence is quite real. In the spring of 1994, the two navies exchanged warning shots over possession of a research vessel and its equipment. Though this incident has not spawned others, the fleet’s poor material condition and the

presence of ethnically and politically hostile factions on the peninsula create the preconditions for future conflict. The inability of Kiev and Moscow to come to agreement on the division and basing of the Black Sea Fleet, most recently in October 1996, prolongs the uncertainty surrounding the fleet and the Crimean Peninsula as a whole. Incidents of this type could become more frequent, with destabilizing consequences for the fleet and Crimea itself, if no solution is found for the medium- and long-term stationing of the fleet.

There are long-term trends that point toward the gradual reduction of the naval force in Sevastopol. These are the intense pressures on the Russian military budget which have already greatly reduced naval resources and which are likely to decrease further or eliminate altogether the Baltic and Black Sea Fleets over time.¹⁶ Minister Rodionov's struggle throughout the autumn of 1996 to win increased funding for the military, including unpaid wages for the late spring and summer, has revealed a military that, in Rodionov's words, has "reached the limit beyond which extremely undesirable and even uncontrollable processes may arise."¹⁷ Despite President Yeltsin's election promises to increase support to the Baltic Fleet and other naval forces, there are few signs that new funds for the navy are forthcoming. The priorities of sustaining nuclear forces, fighting in various regional conflicts, and taking care of the needs of ground and air forces leave little for the navy as a whole, let alone for the Black Sea Fleet. In the long run, the problem becomes less a security issue than one of economic adjustment for the local population. What is needed is a set of agreements and economic investment, at least in the case of the Black Sea Fleet, that lets this process run its course. Great restraint is required on both the Ukrainian and Russian sides, a restraint that could be easily undermined by current political and military pressures.¹⁸

What is common to both cases is the uncertain control of the central military authorities in Moscow of key force pockets in the west, shifting to local commanders tremendous authority—and tremendous temptations—to act on their own. At present, there appears no easy way to reverse this trend, but these force pockets continue to represent the basic transmission belts for the violence and instability already present in other parts of the former USSR.

The Ukrainian Armed Forces

Ukraine is the only new state of the former Soviet Union with the potential to create an indigenous military of concern to Russia. Ukraine is not in a position to create an army that poses an offensive threat to Russia, but over time Ukraine can build up a force of real destructive power that could alter Russian calculations about the balance of forces and its options in the western regions. However, the Ukrainian military, like other basic political institutions within Ukraine, is still in the formative stage. As with other institutions, it is evolving on the basis of a political and territorial notion of citizenship, not ethnic identity. The Ukrainian military is also under an overwhelming resource con-

straint limiting basic activities like training, maintenance of existing equipment, and even the ability to reduce existing force structure to sustainable levels. Thus, for some time to come, the Ukrainian military will be in the process of establishing its identity, mission, and capabilities. A breathing space exists in which the Russian-Ukrainian military relationship, like the Russian-Ukrainian relationship as a whole, can be put on stable footing.¹⁹

The Russian military leadership, to date, has poorly used this breathing space. It has largely viewed the rise of the Ukrainian military with a mixture of fear and condescension, making it difficult to resolve outstanding issues, like the future of the Black Sea Fleet, or to forge a more broad-based relationship.²⁰ Russia's military leadership, like its political leadership, has regularly exaggerated the extent to which nationalist anti-Russian sentiments shape Ukrainian political and military policies. Former Ukrainian Minister of Defense Morozov's early dismissal of political officers and others who would not take the oath of loyalty to Ukraine yielded less than 20,000 officers who resigned or were not assigned to new positions in an army of, at that time, over 750,000.²¹ Senior Russian military officials regularly complain of widespread *Ukrainization* to the detriment of ethnic Russian officers. Though Morozov flirted with the nationalist Union of Ukrainian Officers, this organization criticized him for the small size of the dismissal and for his reluctance to shift the military to a more nationalistic and ethnic basis. No matter what Morozov's intentions—and he has become a more outspoken proponent of national democratic views since his resignation from the Defense Ministry—he could not have maintained peace in his already beleaguered institution had he conducted a serious effort at *Ukrainization*.

Russian military policy statements have focused on schemes for bilateral and multilateral military structures that would leave little room for an independent Ukrainian armed forces. The clearest statement of Russian rhetorical ambitions in this regard was made by former Defense Minister Pavel Grachev, after the September 1993 Massandra meeting of Presidents Kravchuk and Yeltsin. Grachev stated that “after the Black Sea Fleet becomes Russian, it would be desirable that Ukraine comes up with an initiative to establish a military union with Russia, at least on the Black Sea.”²² Grachev's replacement, General Rodionov, has made no such rash statements, but many Russian military and political figures still hold out the hope that some version of Grachev's union will develop. These Russians nourish the view that the long-term subordination of the Ukrainian armed forces to Russia is in Russia's and Ukraine's long-term security interest. In particular, many see deeper ties with Ukraine as part of a Russian response to NATO expansion.

The problem with such an approach is twofold: it overstates what Russia itself is capable of doing to effect a “military union” on any terms but Ukraine's voluntary surrender to the concept; and it impedes the work of moderating influences within Ukraine itself and within the Ukrainian armed forces.

First, Russia's practical military policies toward Ukraine reflect Russia's own military crisis and resource constraints, not a package of enticements toward a closer military relationship. Grachev strictly enforced his regulation, preventing officers serving in the Ukrainian armed forces above the rank of captain from serving in the Russian armed forces. While forming more flexible policies in practice for ethnic Russians in Central Asian armies, the Russian military slammed the door on anyone who decided to stay after the administration of the Ukrainian oath of loyalty in 1992-1993.

In the military-industrial sector, despite attempts to refoster linkages, the Russian defense crisis has basically forced firms within Russia to compete for scarce resources, leaving little for the Ukrainian defense sector. On the long-term basing of the Black Sea Fleet, Russia has regularly sought a duration and terms for basing the Russian element of the fleet in Sevastopol that are insensitive to Ukrainian sovereignty, even though Russian analysts must understand that the actual demands made on Sevastopol port facilities by a modest Ukrainian navy will hardly be noticed. The Russian calculation may be that long-term pressures—such as Ukraine's military equipment dependency on Russia—will force Ukraine back in the fold no matter what policies Russia pursues, but the near- to mid-range effect of Russia's actual policies is to give a boost to the independence and resolve of Ukraine's own forces.

Second, these Russian military and security policies give little support to moderating tendencies within the Ukrainian society at large. The policies rely on a caricature of Ukrainian politics that alternatively curses the domination of anti-Russian nationalists or belittles Ukraine's abilities to build a state without Russia. Yet, such an approach overlooks the fact that Ukraine is still in the process of building a stable state and associated military on the basis of ethnic and regional diversity. This diversity works against extremist security policies, whether of the anti-Russian or anti-independence variety. An attempt by the Ukrainian leadership to give Ukrainian foreign and security policy an anti-Russian focus, absent provocation from Russia itself, would cause major internal splits within Ukraine, splits that would undermine the stability and viability of the Ukrainian state.

Russia needs to understand that this Ukraine is the best Ukraine (and Ukrainian military) Russia could hope for, because it is internally self-regulating. The regional and ethnic diversity of Ukrainian political and military institutions frustrates the emergence of an extremist security agenda. The failure of this state is unlikely to lead to Ukraine's disappearance altogether but rather to other configurations that are far more threatening to Russian security. Moreover, as this article has argued, should this challenge arise, the Russian military and economy are simply not in a position to respond effectively.

Though the apparent inclination of the Russian military is to search for more and better levers for integration with the Ukrainian military, a more realistic option in the near term involves the recognition that a small but

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independent Ukrainian military probably best serves Russia's national interest. It should continue to seek cooperation on projects of real mutual benefit, such as maintaining the strategic air defense network. But, above all, the Russian military should exercise restraint in its long-term plans for deployments and exercises on the Ukrainian border. The last thing the Russian military should seek is to recreate a militarily significant border with Ukraine, even temporarily, and even if it is sure that it will continue to hold decisive advantages in manpower and equipment. Russian military and security policy should not squander the advantages it now enjoys of a demilitarized western theater, particularly if the new borderlands—as well as the rising uncertainties in the Far East—come to command the bulk of Russia's defense resources. In such circumstances, an untroubled security environment in the West would appear to meet fundamental Russian security interests.

The Remilitarization of Belarus

But such an environment may indeed be slipping away on Russia's western borders. Since the fall of the Soviet Union, Belarus has experienced a steady and rapid demilitarization, both with regard to nuclear weapons and the dismantling of the conventional forces of the old Soviet Belorussian Military District. The final nuclear withdrawals took place in November 1996, while the large Soviet ground presence has been whittled back to Russian air defense units. This rapid demilitarization is not unique to Belarus, but is part of a larger trend taking place on both sides of the old line of contact between NATO and the former Warsaw Pact. Some analysts regard this broad separation of forces as the key strategic accomplishment of the past half decade: “The maintenance and legal consolidation of this separation is one of the main objectives of the Russian national strategy.”²³ Belarusian plans for an army of less than 100,000 represent a continuation of this trend.

This would be the end of the story of—and of Western interest in—military developments in Belarus were it not for a clear political trend toward deep security ties with Russia and the potential that those ties could be the basis of a Russian military response to the expansion of NATO. The political aspects of NATO's expansion have been debated endlessly in the West and Moscow. The security environment on “the day after NATO expansion” has received less attention but goes to the heart of the military future of Belarus. Many in Moscow

believe that NATO expansion will require specific Russian military measures in response. Senior Russian defense and national security officials have regularly stated that Russia will have to take specific political and military measures in response to NATO's expansion. General Rodionov has stated explicitly that Russia would have to revise its military doctrine, form a "counter-alliance," strengthen its "southern, western, and northwestern groups of forces," and possibly redeploy tactical nuclear weapons on Russia's western borders.²⁴

Military sources and other observers of the Russian military believe the most likely field on which to take these "other measures" is Belarus. The political momentum toward integration has picked up speed, winning praise from military observers.²⁵ The military infrastructure of the old Belarusian Military District remains largely intact. No strong indigenous political movement would oppose the move. Indeed, some observers believe a significant element of the current Russian officer corps needs to rekindle the old Western threat to regain resources and influence lost in the past four years.

However, it should be kept in mind that the current crisis within the Russian military and the resource demands made upon it by involvement in ongoing conflicts place real limits on the near-term actions that can be taken. The most likely response would be an ambitious declaration of military intentions, ranging from the creation of joint Belarusian-Russian forces to plans to reintroduce Russian ground and air units, perhaps even nuclear-capable systems. What would actually take place on the ground would be only symbolic at first—perhaps a few companies or the shifting of divisional headquarters—but in the current atmosphere that emphasizes statements of intention over actual capabilities, there is little doubt that even these steps would cause a serious chill in East-West relations.

The preceding paragraphs say nothing about either the inevitability or the wisdom of this response to NATO expansion. In particular, a response of this kind, though widely bandied about by the military and discussed by outside observers in Moscow, requires a strategic decision of some consequence. It would significantly raise the ante for the West on NATO expansion, but it would also reverse a military course in Europe favorable to Russia and the West. It would be widely seen on both sides as a return of a Cold War military dimension to the relationship, however remote serious deployments were from taking place on either side. The current drift in the overall relationship between Russia and the West, as well as the political atmosphere in Moscow and Washington, give little hope that the focus of either side will be on preserving the security gains of the past several years.

Conclusions

This rough sketch of the Russian military and the borderlands suggests several conclusions. Whatever the results of Russian military reform, the armed forces that eventually emerge will in no way resemble their Soviet predecessor

in global reach or power. The military will be more inward-looking, with significant sacrifices of naval and long-range force projection capability. It will deepen its embrace of nuclear weapons as a hedge against developments beyond these new borderlands, but its equipment and doctrine will be shaped significantly by operations on the borderlands. In the near term at least, it will become much more of a frontier army.

These encounters with the borderlands have a momentum of their own. Particularly in the zones of conflict, this military momentum leads to increased military involvement in regions where political stability is already weak. The result could very well be a catalyst for expansionist and imperialist tendencies, not too far from the surface of the new Russian rhetoric about national interests and goals. In such a scenario, the borderlands play an important counterweight to internal efforts at political and economic reform.

The military momentum in the borderlands could seriously distort Russia's coming strategic choices. Russia cannot be uniformly strong along its entire border, yet, judging from the statements and writings of the Russians themselves, security challenges of one kind or another are emerging along the perimeter of Russia. In the south, there are instability and local conflicts. In the east, Chinese economic, demographic, and military power is on the rise in a region already rapidly changing as a result of the collapse of the USSR. And, in the West, the potential expansion of the NATO Alliance and its long-term influence over Ukraine and other western borderlands appears as a military challenge to Russia's traditional "spheres of influence." Russia and its military must decide where the real challenges lie, where it must be strong and where it must seek settlement. Above all, Russia cannot afford a return to strategic autarchy in which its attempts at military self-sufficiency distort reforms at home and deepen Russia's isolation from the world-at-large.

Though military weakness would seem to compel a judicious political and military strategy, it also appears to call forth various compensatory strategies that look to the borderlands to supply the military glory or sense of political primacy absent in Russia's encounters outside the borderlands. In addition, these lands seem to beckon the military, or at least parts of the military, to old-fashioned glory and national purpose or to newfound wealth—the very eros of the frontier which Valuev described. Yet, this eros is as false a guide to policy as any other steppe or desert apparition. And, like the apparition of an oasis so common in the desert, it fixes the mind on pursuit of what is not real, robbing it of its reason and of its last reserves of strength. If the Russian military follows this apparition, it could very well be the last chapter in the history of its encounter with the borderlands.

NOTES

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1. D. A. Miliutin, *Dnevnik D. A. Milyutina*, 4 vols., ed. P. A. Zayonchkovskiy (Moscow: 1947-1950), I, 47; P. Valuev, *Dnevnik P. A. Valueva: Ministra vnutrennikh del*, 2 vols. (Moscow: 1961), II, 60 ff.
2. On geopolitical trends in the former USSR, see my "The Integrationist Temptation," *The Washington Quarterly*, 18 (Spring 1995), 35-44. For excellent overviews of the Russian military in Eurasia, see John W. R. Lepingwell, "The Russian Military and Security Policy in the 'Near Abroad,'" *Survival*, 36 (Autumn 1994), 70-92; and Susan Clark, "The Russian Military in the Former Soviet Union—Actions and Motivations," *Jane's Intelligence Review*, 6 (December 1994), 538-43.
3. See, for example, a Russian report that Chechen fighters had modest amounts of T-62 and T-72 tanks, armored combat vehicles, and multiple rocket launchers at the beginning of the conflict (*Novoe vremya*, 27 January 1995, pp. 14-15). In general, however, the units of the Transcaucasian Military District, the 14th Army, and the Central Asian Military District were low-readiness units, equipped with older equipment.
4. According to one estimate in 1994, 40,000 Russian troops were stationed in Central Asia and 22,000 in the Caucasus (Jed C. Snyder, "Russian Security Interests on the Southern Periphery," *Jane's Intelligence Review*, 6 (December 1994), 548). This figure did not include the approximately 40,000 or more troops sent to Chechnya in December 1994, the last of which were scheduled to be withdrawn in January 1997 (Michael R. Gordon, "Yeltsin Orders Withdrawal of Troops in Chechnya," *The New York Times*, 24 November 1996, sec. 1, p. 4).
5. On the political and military implications of the frontier, see Bruce W. Menning, *Bayonets Before Bullets: The Imperial Russian Army 1861-1914* (Bloomington: Indiana Univ. Press, 1992), esp. pp. 11-12; and "The Army and Frontier in Russia," *Transformation in Russian and Soviet Military History*, ed. Carl W. Reddel (Washington: US Air Force Academy, 1990), pp. 25-38. On the influence of the Caucasian wars on Miliutin's reforms, see Forrest A. Miller, *Dmitri Miliutin and the Reform Era in Russia* (Vanderbilt, Tenn.: Vanderbilt Univ. Press, 1968), p. 12; and P. A. Zayonchkovskii, *Voennye reformy 1860-1870 godov v Rossii* (Moscow: Izdatel' stvo moskovskogo universiteta, 1952), pp. 83-84. On Cherniaev, see David Mackenzie, *The Lion of Tashkent: The Career of General M. G. Cherniaev* (Athens: Univ. of Georgia Press, 1974).
6. For the argument that Russia is pursuing a coherent, center-driven strategic plan in the Caucasus and Central Asia, see William E. Odom and Robert Dujarric, *Commonwealth or Empire? Russia, Central Asia and the Transcaucasus* (Indianapolis: Hudson Institute, 1995).
7. General Yermolov, Russian Commander in the Caucasus from 1816-1827, stated that "the Caucasus are a large fortress, defended by a garrison half a million strong. One must either storm [this garrison] or take it by trenches. A storming would be too costly. Therefore we will carry out a siege" (quoted in A. A. Kersnovskiy, *Istoriya russkoy armii v chetyrekh tomakh* [Moscow: Golos, 1994], II, 95).
8. For a list of formal Russian commitments to the Tajik border, as well as a spirited defense of Russian involvement there, see the press briefing by Andrey Nikolayev, Director of the Federal Frontier Service (Bol'shaya Lubyanka), *Federal News Service Transcripts*, 12 April 1995.
9. On the question of border construction, as well as the use of peacekeeping forces throughout the former USSR, see Aleksandr Golts, "Mirotvorcheskie operatsii kak sredstvo realizatsii natsional'nykh interesov Rossii," in the monograph *Rossiya: Novye Parametry Bezopasnosti* (Russia: New Security Parameters), ed. Sherman Garnett and Irina Kobrinskaya (Moscow: Carnegie Endowment for International Peace, 1995).
10. Twelve thousand for the 201st and 28,000 for Russian-Turkmen forces, according to IISS's *The Military Balance 1994-1995*, p. 118. Russian border guard forces add an additional several thousand at most.
11. For an overview of the emerging strategic environment in the Far East and the policies and perspective of the key powers, see *The Strategic Quadrangle: Russia, China, Japan and the United States in East Asia*, ed. Michael Mandelbaum (New York: Council on Foreign Relations, 1995). In his essay in this volume, Robert Legvold argues that the key factor shaping the Far East is not Russia's power but rather the "trouble into which [it] can slide" (p. 19). This trouble can spill over into neighboring states of East Asia. "The essence of the Russian challenge is not Russia as a player. . . but Russia as a problem" (p. 20). This Russia as a problem is also less able to weather pressures and frictions as confidently as it might otherwise.
12. There are a number of areas where Chinese economic and demographic pressures create friction with Russian fears and capabilities to manage these pressures. Russian regional leaders in Primorskiy Krai and Khabarovsk have attempted to alter state-to-state negotiations on border demarcations. Any number of Russian areas adjacent to the border are magnets for Chinese immigration. In addition, large-scale economic projects, such as the plan to create a direct outlet for Chinese products to the Sea of Japan in the so-called Tumenjiang triangle, if completed, will attract outside investment and laborers in unprecedented numbers. For the Tumenjiang project, for example, Russian analysts estimate a new port could attract up to ten million new residents, the bulk likely to be Chinese and other Asians. Few in Moscow expect large numbers of Russians to move to the Far East. On the Tumenjiang project, see Igor Korkunov, "On the Project of the Tumenjiang Free Economic Zone in the Territory of Russia, China and North Korea," *Far Eastern Affairs*, 2 (No. 3, 1994), 38-43. Additional details on the project, including estimates of migration into the region, were supplied to me during interviews in Moscow in February 1995.

13. Ethnic Central Asians never made up a very large percentage of the officer corps of the old Soviet Army and were especially under-represented in field commands and other senior leadership positions. The most important incentive for ethnic Russian officers to stay put has been simply the absence of opportunity in the Russian army itself. In Turkmenistan, a formal Russian-Turkmen arrangement exists that counts service in Turkmenistan as service in the Russian army proper. In Uzbekistan and Kazakhstan, many ethnic Russian officers remain in service but without explicit benefits or future options from the Russian authorities. Susan Clark provides a list of incentives Russia offers to keep ethnic Russian officers serving in foreign armies ("The Russian Military in the Former Soviet Union—Actions and Motivations," p. 542). Her list suggests a more uniform policy in this regard than apparently exists in practice, at least as I have learned from various military and journalistic sources in Moscow. These sources paint a portrait of a more chaotic set of policies, with priority given, in the absence of a bilateral agreement, to decrees that close the door on a return to the Russian army of ethnic Russian officers serving in the armies of the new states. For example, a decree by Grachev forbids the return of officers serving in a foreign army above the rank of captain. This decree has not stopped many graduates of Ukrainian military academies from serving in the Russian army. There are several thousand Ukrainian cadets serving in the North Caucasus, where combat pay in relatively stronger rubles makes service in the Russian army attractive. In the North Caucasus, local commanders welcome the Ukrainians as a solution to the growing shortage of line officers (See note 6). However, for more senior officers, service in the Ukrainian army shuts the door on any return to Russia. In Uzbekistan, both sides appear to tolerate a less rigid situation. Many Russian officers remain in Uzbek service, but they have refused to sign contracts, a step that would make them ineligible for future service in or benefits from the Russian army. The growing military relationship between Russian and Kazakhstan may yet create an additional category of service closer to that of Russians in Turkmenistan.

14. On military issues in Kazakhstan, see Steve Liesman, "Kazakhstan Agrees to Combine Its Army in Part With Russia's," *The Wall Street Journal*, 25 January 1995; Shirin Akiner, "Soviet Military Legacy in Kazakhstan," *Jane's Intelligence Review*, 6 (December 1994), 552-55; and Richard Woff, "Kazakhstan—National Defense and Security Forces," *Jane's Intelligence Review*, 5 (April 1993), 178-80.

15. *Military Balance 1995-1996* estimates the troop strength of the unit at 6400, with 120 main battle tanks.

16. See the account of a document on defense reform attributed to a Russian National Security Council source in *Komsomol'skaya pravda*, 11 April 1995, p. 12. The report recommends the consolidation of the Russian navy move toward two fleets—Northern and Pacific, with the long-term phase-out of the Black Sea and Baltic fleets.

17. *ITAR-TASS*, 25 October 1996.

18. For an overview of trends within the Black Sea Fleet and policy recommendations for US and Western actions that might aid in bringing about a stable solution to the dispute, see my "U.S. National Interests in Crimea," in *Crimea: Dynamics, Challenges and Prospects*, ed. Maria Drohobysky (Lanham, Md.: Rowan and Littlefield, 1995).

19. On the broader questions of the Ukrainian-Russian relationship, including nuclear policy, see Sherman Garnett, "The Ukrainian Question and the Future of Russia," *Politichna Dumka*, 4 (1994), 169-77; "The Sources and Conduct of Ukrainian Nuclear Policy: November 1992 to January 1994," *Nuclear Challenges for Russia and the New States of Eurasia*, ed. George Quester (New York: M. E. Sharpe, 1995); and "Ukraine and the NPT," *Arms Control Today* (January-February 1995), 7-12.

20. Morozov records the condescending treatment he received at Massandra, with Grachev stating that Ukraine could not handle its own fleet. Morozov, of course, is the Russian military's *bête noire*, but relations did not substantially improve with the appointment of Radetsky. As with Kuchma's election, Russian observers overestimated how far new Ukrainian officials would go to accommodate Russia. Inevitably, they are disappointed when these officials, whether civilian or military, respond to internal political pressures, their own convictions and the rather pronounced impact of the new responsibilities they hold to conduct a more independent-minded policy than expected. Morozov's memoirs were circulated as a campaign pamphlet *Shchil'ni Shary Nezalezhnosti* (Kiev, n.d.) and published in *Ukrainska hazeta*, 1 (No. 4, 1994).

21. Morozov stated that 10,000 officers refused to take the oath of loyalty to Ukraine and were permitted to leave Ukrainian service. Draftees from outside Ukraine were also permitted to leave. Six thousand political officers and party secretaries "were not assigned to posts in the Ukrainian armed forces" (Konstantin Morozov, "Theses Presented to the Conference 'The Military Tradition in Ukrainian History: its Role in the Construction of Ukraine's Armed Forces,'" text distributed at the conference, Cambridge, Mass., 12-13 May 1994).

22. *ITAR-TASS*, 4 September 1993.

23. Aleksey Arbatov, "Rossiya: natsional'naya bezopasnost' v 1990 godov," *Mirovaya ekonomika i mezhdunarodnye otnosheniya*, 7 (July 1994), 5-15; and 8-9 (August-September 1994), 5-18.

24. *Nezavisimaya gazeta*, 28 November 1996.

25. The material in this section is based mainly on interviews in Moscow and Kiev conducted in February and April 1995.

Considerations for US Strategy in Post-Communist Eurasia

PAUL H. HERBERT

With the collapse of communist and Soviet power in Europe, the slow but steady political and economic reform of the 27 successor newly independent states (NIS), and the impending admission to the North Atlantic Treaty Organization (NATO) of new members, the United States has a real but fleeting opportunity to realize significant strategic gains in post-communist Eurasia in the years to come. Wise policy in pursuit of these opportunities requires recognition of the region's complexity.¹

The United States has two overriding and closely related regional interests, one immediate, the other long-term. The immediate interest is that the former Soviet Union's weapons of mass destruction and related technologies not threaten the safety of the United States nor that of our allies. Any loss of control over those weapons and any proliferation of them to other states would constitute a potential threat. The longer-term interest is that the region's vast human, natural, and material resources not be dominated by a single power whose values and interests are inimical to ours. Both of these interests can be described in positive terms by stating that the United States has a long-term interest in the integration of all 27 NIS into the cooperative community of secure, free-market democracies.

A Region of Diversity and Change

Our policies in pursuit of these interests must be carried out in a region that is nothing if not diverse. The NIS can be regionally grouped as shown in the table on the following page. While some such aggregation is necessary to preclude dealing at the strategic level with 27 discrete states, it is also conditional at best. At worst it can lead to false generalizations or

Regions of Newly Independent States (Populations in millions)	
Central European (Total = 64.6)	Old Russia (Total = 211)
Czech Republic (10.4)	Belarus (10.3)*
Hungary (10.3)	Russia (148.6)*
Poland (38.5)	Ukraine (51.8)*
Slovakia (5.4)	
Baltic States (Total = 8.0)	The Caucasus (Total = 15.5)
Estonia (1.6)	Armenia (3.3)*
Latvia (2.7)	Azerbaijan (7.1)*
Lithuania (3.7)	Georgia (5.4)*
Balkans (Total = 64.5)[†]	Central Asia (Total = 53)
Albania (3.3)	Kazakhstan (17.2)*
Bosnia-Herzegovina (4.6)	Uzbekistan (22.1)*
Bulgaria (8.8)	Kyrgystan (4.4)*
Croatia (4.7)	Tajikistan (5.4)*
FYROM (Macedonia) (2.7)	Turkmenistan (4.2)*
Moldova (4.5)*	
Romania (23.2)	
Serbia (10.7)	
Slovenia (2.0)	

[†] See map at Figure 2.

* Members of the Commonwealth of Independent States (see map at Figure 3).

Figure 1. Newly Independent States, Grouped by Region.

assumptions that can undermine strategic analysis and policy. For example, Central European states whose national histories are centuries old might well object to the connotation of youthful inexperience in the term "newly independent." The Baltic states and Romania are determined to assert their identity as Central European. Despite its historical, cultural, and linguistic ties to Russia, Ukraine likewise seeks an independent identity as a neutral Central European state. Classifying Romania and Moldova as Balkan states is geographically inaccurate. It also might imply to some Moldovans an historical and cultural tie to Romania inconsistent with their strong desire for independence. But neither is Moldova Russian, or Ukrainian, or Caucasian.

The populations of most of these states are also quite mixed by ethnicity, language, religion, and culture, compounding the difficulty of national cohesion within currently recognized borders. Many states (e.g., Georgia, Moldova, Romania, Tajikistan, Ukraine) have significant minorities whose ethnic, historical, and cultural identity is toward another neighboring state. The largest

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such minority is the ethnic Russians. The collapse of the Soviet Union left an estimated 22 to 25 million ethnic Russians living within the NIS, some of them third- and fourth-generation residents. Their status ranges from fairly thorough assimilation, as in Kazakhstan, to ostracism as an unwanted remnant of Soviet domination, as in the Baltic states. Their plight has deep resonance within Russian society. Russia has asserted a national interest in their welfare, which, in turn, its neighbors find threatening. Compounding these difficulties is the movement throughout the former Soviet space of what can be described as ethnic refugees, that is, persons of certain ethnic origins forcibly removed from their homelands by Joseph Stalin's regime who are now attempting to return. The number of such refugees has been estimated at nine million.²

If national identities are not entirely clear, neither are the borders themselves. The collapse of Soviet hegemony in Eastern Europe has reawakened historical disputes over borders that go back to the Congress of Vienna or earlier, while some successor states to the Soviet Union, especially in Central Asia, are bounded by administrative lines drawn specifically to divide powerful ethnic groups. Unsettled questions of territory, nationality, and citizenship have significant implications for political stability, economic development, and security, as recent and ongoing conflicts in Armenia, the Balkans, Chechnya, Georgia, and Tajikistan clearly illustrate.

The NIS also differ dramatically from each other in terms of the transitions they are making, and it is here that policymakers must be very careful to perceive important differences. There are at least five transitions taking place in each state. No two states are at the same point in all five, which makes each state's transition unique. The five transitions taking place are from communism to something else; from command to market economies; from underdevelopment to modernity; from domination to independence; and from global or regional power to a lesser status for the near term.

Political Change

The political change from communism to something else varies widely among the NIS. No two states began with the same experience under "communism," which varied significantly from country to country and from time to time. Hungary's "goulash communism" was significantly different from Nicolae Ceaucescu's cult of personality in neighboring Romania, for example. Marshal Tito in Yugoslavia steadfastly pursued his own brand of communism independent of the Kremlin, and Albania just as steadfastly maintained its brand independent of Tito. The Central Asian Soviet Socialist Republics accepted communist slogans and labels and Russian *apparatchiki* from Moscow, while maintaining some of their traditional ways of life, including the importance of clan relationships in local political arrangements.

During the same period, we in the West so long equated "not communist" with "democratic" that we tended to perceive the collapse of communism



Figure 2. The Balkan States (shown in white).

as the prelude to the inevitable emergence of democracy. The simultaneous collapse of both communist and Soviet power has indeed opened the gates to Western and democratic influences. But it has also allowed other political values to emerge; meanwhile communism, as the Russian elections show, is by no means extinct. So exactly what kind of political structures will develop in any given state remains to be seen.³

Economic Development

In many countries, political development will parallel economic development, and here the variety is as great as the conditions are daunting. Because under communism products did not have to compete, every state inherited an outmoded and near-obsolete industrial plant. Soviet and satellite industry was heavily skewed toward defense and does not now easily convert to consumer or domestic production. For ideological and security reasons, central planners scattered industries widely. Thus the Slovak Republic is the heir to factories that built aircraft fuselages, while Poland built the wings, and Ukraine built the engines. No one satellite state built the entire aircraft. In Ukraine, Kazakhstan, and Russia, the Soviet government built many medium-sized cities, each for the sole purpose of housing workers for a single defense enterprise that is now defunct. The workers and managers who emerged from

communism brought with them little or no experience in free-market techniques. Under communism, there existed no body of business law to protect investors, owners, managers, workers, or customers, nor is there now a legal culture by which people expect fair treatment under known and impartially applied laws.

National responses to these conditions have not been uniform. Poland's "shock therapy" (by which the government rapidly divested itself of almost all state-owned enterprises while encouraging foreign investment and writing laws to protect business) caused massive dislocation and discontent, but now seems to be bearing the fruit of a rising gross domestic product and standard of living. By contrast, Bulgaria has yet to privatize its huge state enterprises and thus endures the triple disadvantage of low foreign investment, high government debt, and unemployment and worker discontent. The Czech Republic hopes to become a competitive producer through a strategy of privatization, modernization, and defense conversion. Less-developed states like Kazakhstan and Azerbaijan look to resource extraction as the engine of their developing economies, while still others, such as Georgia and the Baltic states, hope to benefit from the transshipment of goods through their territories.

These economic conditions have political and international repercussions. Privatization schemes in the absence of effective laws invite corruption and organized crime. Foreign investment brings with it highly visible hallmarks of foreign culture which is not always welcome. The image of foreign investors and local entrepreneurs enriching themselves through privileged acquisition of former state properties, service sector businesses, and mineral extraction—while once productive arms factories and their work forces lie idle—is ripe for exploitation by nationalist ideologues. Workers must work, and so governments are under intense pressure to pursue inflationary spending practices that inhibit development and foreign assistance, notably from the International Monetary Fund. Russian arms sales to China, India, Iraq, and Iran, and nuclear assistance to Iran and Cuba, can be seen in part as acts of economic desperation; by exporting what it can to the only people who will buy the product, Russia seeks to keep a hard-pressed sector of the economy afloat.

Underdevelopment to Modernity

A third dimension of change is from underdevelopment to modernity. It is fair to call nearly all the 27 NIS "underdeveloped." They all are characterized by a standard of living and quality of life far below what should have been possible given their potential. Despite impressive scientific, industrial, and military accomplishment due to concentrated government effort, and the provision for most citizens' very basic needs, the societies under communism did not prosper and advanced only fitfully and slowly.

The degree of initial underdevelopment and the degree of progress toward modernity since the collapse of communism vary greatly from country

***“The United States has a real but fleeting
opportunity to realize significant strategic
gains in post-communist Eurasia
in the years to come.”***

to country. Countries with a cohesive population, a nascent middle class of intellectuals, a relatively modern infrastructure, relative confidence in their security, and close proximity to developed sponsors have made great strides: Slovenia, the Czech Republic, Poland, and Estonia are among this group of states. Countries without such good fortune—Slovakia, Georgia, Armenia, and Tajikistan—are much further down the scale. Whether the bulk of its people see modernization as exhilarating, threatening, or simply impossible depends largely upon a state's position on this difficult scale.

From Domination to Independence

A fourth important dimension of change is the transition from domination to independence. Here again, despite very general similarities, the transition is unique in every case. The collapse of the Warsaw Pact and the withdrawal of Soviet military forces from Central Europe did in fact grant to the non-Soviet and Baltic states their long-desired independence. These countries are able to hark back to a pre-World War II national existence against which their postwar experience can be seen as a long, painful, but temporary interruption. They are again nation-states, and they have embraced their national identities with gusto in a profusion of flags, symbols, slogans, and songs. Nevertheless, Estonia, Latvia, and Lithuania feel constrained by their Russian minorities, their proximity to Russia, and Russian rhetoric that implies only halfhearted acceptance of their independence.

For other countries the situation is more problematic. Clearly, the national identity and independence of the Balkan states is still very much an open question, with Slovenia alone having made the transition relatively peacefully and with no immediate threat currently visible. Belarus has no tradition of independence, nor does Ukraine. Despite considerable domestic opposition, Belarus President Alexander Lukashenko openly seeks complete reintegration with Russia, while Ukrainian President Leonid Kuchma just as vigorously pursues complete independence. Georgia, with a centuries-old national identity founded on religion and ethnicity, enjoys only *de jure* independence. Russian peacekeeping troops enforce the *de facto* separation of Abkhazia from Georgia, and several thousand more Russian soldiers occupy key points throughout the

country and patrol Georgia's southern border with Turkey. Under the mantle of peacekeeping, Russian forces likewise patrol the separatist Transdniester region that splinters Moldova; they also play a direct role on the government side in what amounts to an ethnic civil war in Tajikistan.

For most of the former Soviet republics, the Baltic states excepted, the issue of true national independence poses a dilemma. They face both centrifugal and centripetal forces relative to the former capital in Moscow. On the one hand, they genuinely relish their independence. Their memory of the Soviet Union is painful on two counts, first, that it was communist and second that it was Russian. Communism required subservience to an all-powerful center in Moscow and to a stifling orthodoxy that stunted economic growth, repressed local tradition, culture, and religion, and enforced through terror a depressing and impersonal sameness on nearly everyone. Because of the central role played by Russia and Russians in this system, the non-Russian republics equate their sad experience with Russian domination and are therefore highly suspicious at best of Russian intentions toward their nations now.

On the other hand, these states cannot escape either their history or their geography. Their Soviet experience is not regarded as universally bad. In the minds of many, it provided a far greater degree of social justice than appears to be the case in capitalist countries. The states have strong economic, cultural, political, and security links with Russia and with each other. Russian is the one language spoken by nearly everyone throughout the region. Nearly all significant real property is of Russian manufacture. They are important trading partners for each other. They have common security interests with regard to China, India, and the Middle East. For all these reasons, many of these states seek close cooperation with each other. Some degree of regional reintegration is probably inevitable.

No institution illustrates these tendencies more than the Commonwealth of Independent States (CIS), formed in 1991 from the remnants of the Soviet Union and embracing 12 former socialist republics (see Figure 3). The member states have widely divergent notions of what the CIS should be. Russia takes the maximalist position that it should be a very strong organization that includes security, defense, and foreign policy dimensions, and the elimination of customs barriers. Russia tries to differentiate between CIS internal and external borders and claims an interest in helping member states patrol their external borders.

With the probable exception of Belarus, no other member seeks such close integration. For every step toward integration, some members take a step back. Russia, Belarus, Kazakhstan, and Kyrgystan recently signed a treaty calling for greater economic cooperation and integration. But Kazakhstan and Kyrgystan almost immediately thereafter joined with Uzbekistan to create a combined peacekeeping battalion and offer it for use worldwide, significantly



Figure 3. The Commonwealth of Independent States (shown in white).

not under CIS control but only under United Nations auspices. Likewise, these Central Asian states have formed their own trade association and have invited Turkey to participate in their discussions. Nearly every former Soviet republic denounced the Russian Duma's non-binding vote in March 1996 to declare the dissolution of the Soviet Union illegal. Economic cooperation, but not political union or military alliance, seems to be the desire of most CIS members.

Energy is a central element in the related issues of economic development and national independence. Russia is the key supplier of oil, natural gas, and nuclear technology to almost all its neighbors, whether CIS members or not. The dependency of its neighbors is magnified by the depletion (as in Romania) or absence (as in Ukraine) of indigenous resources; the environmental drawbacks to coal, as in Poland; and the strong need for low-cost energy sources in each of the developing economies. As Western technology, investment, and business practices take hold, Russia will become a more important energy exporter, enjoying both the influence that comes with supplier status and the sorely needed foreign currency and credits that come with energy sales.

With the collapse of the Soviet Union, several NIS are now potential competitors with Russia for the energy export market. Turkmenistan, Kazakhstan, and Azerbaijan all hope to benefit directly from the exploitation of the Caspian Sea and other oil and natural gas fields. Iran, Turkey, Russia, Georgia, Kazakhstan, and Armenia are in competition for the pipeline routes that will

carry those resources to ports and the international market. A pipeline through Kazakhstan to China is under consideration. With a growing economy and lacking easily accessible indigenous energy resources, China will be very interested in the energy potential of Central Asia. Thus far, these states have asserted their interests largely through diplomacy and the creation of international consortiums in which US and other Western companies have played a major part.

The stakes in this development are great indeed. In addition to the obvious economic benefits, energy suppliers have tremendous influence on the international scene. They can affect world markets. They have a powerful influence over energy-dependent customers. The possession of lucrative oil fields and pipelines can foster independence, domination, or both. A powerful neighbor may attempt to dominate a state whose energy resources it covets. Those same resources may provide to other powerful actors an interest in the state's continued independence, as the 1990-91 Persian Gulf War so aptly illustrates. This is not to say that the exploitation of energy resources in the former Soviet Union will necessarily lead to military conflict. No state in the region has the military capability, political will, or financial resources for such conflict at present. However, in the development of their energy resources, many of the NIS and other countries have important interests as well as rich opportunities for both cooperation and confrontation.

Changes in Relative Power

The fifth and final transition—changes in the relative power of the former Soviet states—has been most dramatic for Russia, where a sense of national humiliation attends both the loss of empire and the nearly universal rejection of an ideology widely associated with Russia. If there is a national longing for greatness in Russia, there is also an awareness that for the moment, Russia's power and influence are not great. In other former Soviet republics, elation at independence is balanced to some degree with a similar sense of loss. Ukrainians may wonder aloud whether the sacrifices made to give up their nuclear weapons have been appreciated and compensated as they consider French nuclear testing, the enlargement of NATO, and feeble international assistance with the Chernobyl cleanup. Kazakhstan may have similar misgivings, while Belarus's quirky president has tried to hold his 18 remaining SS-20s hostage against NATO enlargement. Yugoslavia stands almost universally condemned and isolated for her aggression in this century's fifth Balkan war.⁴

Because one pole of the bipolar world collapsed, too much emphasis can be placed on the apparent loss of power and prestige and its presumed psychological consequences. No successor state enjoys the power or prestige of the old Soviet empire. However, each successor state, with the possible exception of Russia, enjoys far more influence as an independent nation than it ever did as a mere part of the old empire. Russia, liberated from the crushing

economic burden of maintaining that empire, is the sole heir of the empire's nuclear weapons and retains the old Soviet seat on the United Nations Security Council. Russia enjoys a certain degree of respect, so far not entirely eroded by the war in Chechnya, for its role in the peaceful dissolution of the Soviet Union. Russia's shaky transition to democracy captivates the world's attention and ensures continued Western assistance with economic recovery. As a member of the Council of Europe, Russia aspires to convert the G-7 into the G-8. Most important, Russia shares with the other successor states an unprecedented degree of engagement with the rest of the world.

Opportunities for the United States and for Europe

These widely varied conditions provide both opportunities and risks for the United States, and call for a well-balanced, flexible, and long-term strategy focused on three distant goals: democracy, development, and integration. The collapse of the Soviet threat in Europe was one of the most momentous geopolitical realignments of this century. It allowed the United States and its allies to shift attention and resources to domestic needs while consolidating democracy and stability in Europe and pursuing engagement in other parts of the globe where the need is great. A return to anything like the Cold War in Europe—for example, a “cold peace” between an enlarged NATO and a brooding, partially reintegrated, nuclear armed, and uncooperative Greater Russia—would be a tremendous strategic setback.

By contrast, there is an alternative future that goes well beyond the mere absence of the old Soviet threat. That future includes integration of the former communist states of Europe with the West; a working partnership with a secure, prosperous, and democratic Russia; and further integration of the remaining NIS through multiple international organizations.

An American policy that can foster such a future will rest on several fundamentals. First, Russia is key. That state will be a significant regional economic and military power within the next generation, one that aspires to “greatness,” meaning an international role as well as a regional role. Russia has legitimate security interests in Europe, the Caucasus and Middle East, Southern Asia, Eastern Asia, and the Pacific. Russia's success in the transition to democracy and a free market, assurance of its own security through transparent defense cooperation with its neighbors, and engagement as an active partner of the West—all are of tremendous strategic importance to the United States.

Second, some degree of reintegration of the former Soviet republics is not only inevitable but probably in the best interests of some republics; the United States should not reflexively oppose such an evolution. The process of reintegration must be peaceful, voluntary, and democratic. Reintegration that respects sovereignty, fosters trade and development, reassures mutual security, and promotes democracy and international cooperation is not to be feared in

the West. A CIS that really is a commonwealth and really has independent member states could be an important partner. Russia's greatest challenge is to show its neighbors that reintegration as described above is possible; it will likely be a long, hard sell. The United States and its Western allies, and Western security organizations which the United States does not lead, can meanwhile play an important, constructive role as trusted third parties, encouraging and assisting the normalization of international relations among the former Soviet republics, including reintegration where that is desired.

Third, the North Atlantic Treaty Organization remains central to American interests in Europe and must be preserved as a working organization of like-minded democratic states. Its intended enlargement presents considerable difficulties and will require extremely careful management. To deny NATO membership to those Central European states who earnestly seek it and who meet the requirements could alienate them for generations. It could well forestall their evolution to democracy and relegate them to a nonaligned buffer zone between Western Europe and Russia that would present a constant source of fear and instability. Although an enlarged Alliance would present significant challenges in terms of consensus decisionmaking and the viability of Article V guarantees, it is nonetheless politically imperative, especially now that it has been publicly and repeatedly proclaimed as policy.

The key to NATO enlargement is to achieve it without sacrificing future Russian partnership. To do so requires taking account of Russian domestic political realities and strategic considerations. Domestically, any Russian government must respond to the popular perception of NATO enlargement as "moving NATO tanks to our borders." Years of communist propaganda equated NATO with earlier and real threats to Russia from the West. The lingering suspicion is exploited by a variety of Russian politicians. It must be countered by clear and convincing evidence that an enlarged NATO does not pose a military threat to Russia. Strategically, Russians fear that an enlarged NATO will place a defensive shield over historical antagonists who then will be able to pursue hostile policies with impunity. The response here is engagement and cooperation between the Alliance and Russia on matters of mutual interest. Some progress has been made: management of the Conventional Forces in Europe (CFE) Treaty and Russian participation in the Implementation Force (IFOR) in Bosnia-Herzegovina are examples. As the new government stabilizes following the Russian elections and President Yeltsin's recovery from surgery, NATO could take a positive step forward by offering that government a formal structure of consultation with NATO as the Alliance evolves and enlargement takes place.

Fourth, the United States enjoys considerable influence at the moment and must use it constructively. The euphoria that attended the collapse of communism and the end of the Cold War has given way to more sober

assessments by all participants. Initially disappointed over the absence of a new Marshall Plan for post-communist Europe and frustrated with the early results of reform and the slow pace of integration, the 27 NIS are developing a more realistic determination to build their countries anew largely on their own.⁵ There is little reflexive hostility to the West and considerable admiration. They look to the United States and the West for security and economic assistance and inspiration. The United States, while carefully prioritizing its commitments, must remain engaged and involved and meet these expectations to the best of its abilities. Nothing could be more damaging to the long-term prospects for a new community of cooperative democracies in Europe than the sense of abandonment that would attend any significant disengagement by the United States in the near term.

Finally, the United States must not be deterred by the appearance of temporary setbacks. The complexity of transitions taking place means that our goals are necessarily long-term. Democracy will not bloom overnight in any of the NIS, nor will peaceful or just solutions be found to every one of the region's manifold challenges. Each state has its own notions of its interests which are not always—or even necessarily—compatible with our own. However, not only is the Cold War over, but the end of the Cold War is over. The people of the former Soviet empire are now actively rebuilding their societies, for better or worse. The United States is not in the position of dominance that it enjoyed in the reconstruction of postwar Germany and Japan and so must pursue other, more conservative strategies. But our goal should be similar. A democratic, free-market, integrated, and cooperative community of nations embracing our former foes of the Cold War is possible and most assuredly in the security interests of the United States.

NOTES

1. This article is based on the author's experience as the Senior Army Fellow to the George C. Marshall European Center for Security Studies at Garmisch, Germany, for academic year 1995-96. The Center's College of Security Studies and Defense Economics conducts two five-month courses annually, each for about 75 military and civilian officials of the post-communist NIS. The courses seek to demonstrate how the Western democracies manage security affairs and thereby to encourage democratic reform in the NIS. As a student and classmate in one course, and a faculty member for another, the author had a unique opportunity for extensive dialogue with important leaders from almost all 27 NIS. This experience was supplemented during his fellowship and since with travel to Albania, the Czech Republic, Hungary, Poland, Russia, Slovakia, and Slovenia.

2. Francois Heisbourg, "Population Movements in Post-Cold War Europe," *Survival*, 33 (January-February 1991), 31-44.

3. For a provocative essay on the differences between democratization, modernization, and Westernization, see Samuel P. Huntington, "The West: Unique, not Universal," *Foreign Affairs*, 75 (November-December 1996), 28-46.

4. Yugoslavia here means the current federation by that name, comprising Serbia and Montenegro.

5. Recent elections across Central Europe emphasize this pragmatic trend: "Seven years after the fall of communism, millions looking for better lives across this region simply took advantage of an opportunity that democracy gave them. They voted for change." ("Across Eastern Europe, Voters Are Choosing Any Kind of Change," *The Washington Post*, 12 November 1996.)

National Power

DAVID JABLONSKY

“I put for a general inclination of all mankind, a perpetual and restless desire of power after power, that ceaseth only in death.”

— Thomas Hobbes¹

Thomas Hobbes personifies the realist approach to international relations in a world of anarchy and self-help, in which individual man and men aggregated into states seek to maintain or to increase power. In the modern era, this approach is reflected quintessentially by Hans Morgenthau, who presents national power not only as an end in the Hobbesian sense that “power is always the immediate aim,” but as a means to that end.² The study of strategy also deals with power primarily from the national perspective, an acknowledgment that the nation-state is still the most important actor in the international arena. This perspective is tempered, however, by a recognition that forces and trends in recent decades have produced a multi-centric world of transnational actors that coexists with the traditional state-centric world. Both worlds must be considered when examining the concept of national power.³ There is also the acknowledgment of power as an end or objective in the sense of Morgenthau’s description of national interests defined in terms of maintaining, balancing, or increasing national power. But the emphasis here is primarily on national power as means or resources to further national strategy, defined by the Department of Defense (DOD) as the “art and science of developing and using the political, economic, and psychological powers of a nation-state, together with its armed forces during peace and war, to serve national objectives.”⁴

Most scholars, in fact, focus on power as a means, the strength or capacity that provides the “ability to influence the behavior of other actors in accordance with one’s own objectives.”⁵ At the national level, this influence is based on relations between nation-state A and another actor (B) with A seeking to influence B to act in A’s interest by doing x, by continuing to do x, or by not doing x. Some governments or statesmen may seek influence for its own sake. But for most, influence, like money, is instrumental, to be used

primarily for achieving or defending other goals, which could include prestige, territory, raw material, or alliances. To achieve these ends, state A can use various techniques of influencing, ranging from persuasion or the offering of rewards to threats or the actual use of force.⁶

From this standpoint, the use of a nation's power is a simple relational exercise. But in dealing with the concept of national power, as Clausewitz remarked of war, "everything . . . is very simple, but the simplest thing is difficult."⁷ To begin with, there are subtle characteristics of power that render its use in the national strategic formulation process more art than science. Moreover, relationships among the elements of national power as well as the context in which they are to be used to further a nation's interests are seldom clear-cut propositions. All this means that in the end, national power defies any attempts at rigorous, scientific assessment. The purpose of this article is to demonstrate why this is so and, more important, why, all the complexity notwithstanding, the concept of national power remains a key building block for understanding and developing strategy.

The Context of National Power

National power is contextual in that it can be evaluated only in terms of all the power elements and only in relation to another player or players and the situation in which power is being exercised. A nation may appear powerful because it possesses many military assets, but the assets may be inadequate against those of a potential enemy or inappropriate to the nature of the conflict. The question should always be: power over whom, and with respect to what?⁸

Multidimensional Interrelationship. National power is historically linked with military capacity, a natural relationship since war in the international arena is the *ultima ratio* of power. Nevertheless, one element of power alone cannot determine national power. For instance, there is the huge size of Brazil, the large population of Pakistan, the industrial makeup of Belgium, and the first-class army of Switzerland. Yet none of these states is a first-rank power. Morgenthau calls the mistaken attempt to define national power in terms of one element of that power the "Fallacy of the Single Factor." Another aspect of this fallacy is the failure to distinguish between potential and actual power. Part of the problem stems from the fact that the term "power" has taken on the meaning

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of both the capacity to do something and the actual exercise of the capacity. And yet a nation's ability to convert potential power into operational power is based on many considerations, not the least of which is the political and psychological interrelationship of such factors as government effectiveness and national unity.⁹

In this context, the elements of national power, no matter how defined, can be separated only artificially. Together, they constitute the resources for the attainment of national objectives and goals. And while those goals may be judged as moral, immoral, or amoral, the elements of power are simply means to national strategic ends and as such are morally neutral. It is possible, in other words, to reject the cynic's belief that God is on the side of the largest number of battalions, as well as the assumption that the side with the smallest number always fights for the right.¹⁰

Relations and Dynamics. National power is relative, not absolute. Simply put, a nation does not have abstract power in and of itself, but only power in relation to another actor or actors in the international arena. To say that the United States is the most powerful nation on earth is to compare American power with that of all nations as they currently exist. Nevertheless, leaders of a nation at the peak of its power can come to believe that such power has an absolute quality that can be lost only through stupidity or neglect. In reality the superior power of a nation is derived not only from its own qualities, but from that of other actors compared with its own. Many observers in the late 1930s, for example, perceived France as more than a match for Nazi Germany, since the French military of that era was superior in quality and quantity of troops and weaponry to the victorious French forces of 1919. But the French military power of 1919 was supreme only in the context of a defeated and disarmed Germany; that supremacy was not intrinsic to the French nation in the manner of its geographic location and natural resources. Thus, while the French military of 1939 was superior to that of 1919, a comparison of 1939 French military power to that of Germany in the same year would have shown a vastly different picture for many reasons, not the least of which was the German adoption of the military doctrine of blitzkrieg.¹¹

Closely allied to all this is the fact that national power is dynamic, not permanent. No particular power factor or relationship is immune to change. In this century, in particular, rapid changes in military technologies have accelerated this dynamism. America's explosion of a nuclear device instantly transformed its power position, the nature of warfare, and the very conduct of international relations. A war or revolution can have an equally sudden effect on power. The two world wars devastated Europe, caused the rise of the flank powers, the United States and the Soviet Union, and set the developing world on a road to decolonization that in less than 50 years dismantled a system that had been in existence for over three centuries. Economic growth can also quickly change a nation's power position, as was the case with Japan and

Germany after World War II. In addition, the discovery of new resources, or their depletion, can alter the balance of power. Certainly OPEC's control over a diminishing supply of oil, coupled with its effectiveness as a cartel, caused a dramatic shift in power relations after 1973.¹²

Such shifts are not always so immediately discernible. Power, as Hobbes long ago pointed out, is what people believe it is until it is exercised. Reputation for power, in other words, confers power on a nation-state regardless of whether that power is real or not. At the same time, there are examples throughout history of nations that continued to trade on past reputations, only to see them shattered by a single event. For France, the battles of Sedan produced just such effects in 1870 and again in 1940.¹³

This subjective characteristic of power also plays a key role in deterrence, the exercise of negative power as state A influences actor B *not* to do x. The influence is effectively exercised because B perceives that A not only has the capability to prevent B from doing x, but the willingness to use that capability as well. In other words, national credibility must be a concomitant of national capability for deterrence to work. When the combination doesn't occur, as Britain and France discovered when Hitler discounted their guarantee of Poland in the summer of 1939, the result can be war. "*The men of Munich will not take the risk*," the Nazi leader explained to his commanders on 14 August 1939.¹⁴

Situational. Some elements of national power or combinations of power cannot be applied to certain situations involving certain actors. The United States in 1979-80, for instance, was powerless to rescue American citizens held hostage in Teheran, and American nuclear power during the Cold War had little value in causing nonaligned countries to modify their policies; nor did it deter North Korea or North Vietnam in their attempts to unify their countries.

The Vietnam War also illustrates another contextual aspect of national power, that of cost-risk-benefit analysis, in which power can be exercised but the costs and risks are perceived to be disproportionate to the benefit achieved. Power, in other words, must be relevant in the existing circumstances for the particular situation. This explains why, during the 1973 Arab-Israeli War, the United States was not able to persuade its European allies to allow American planes to use NATO bases for refueling and maintenance. The overall economic and military strength of the United States as well as the political bonds of alliance solidarity proved less influential on European decisionmakers than the possible economic loss of their access to oil. This type of American power was equally irrelevant in late 1994 when Britain and France, with troops involved in peace operations on the ground in Bosnia, turned down a US plan for NATO air strikes to support Muslims in the besieged town of Bihac.¹⁵

This aspect of the contextual nature of national power introduces even more complications when the diversity of actors in the international arena is

taken into account. In an increasingly multi-centric world, nation-states will increasingly deal with transnational actors in the exercise of national power. The European Union is just one example of international government organizations in which the confluence of political and economic trends has created a supra-national regional unit that transcends in many ways both the legal-territorial aspects of the state and the psychological unity of the nation. This type of challenge is abetted by international nongovernmental actors ranging from multinational corporations focused on self-interested profit and national liberation movements seeking to establish new governments within existing states, to organizations such as Amnesty International or Greenpeace, seeking to mobilize international public opinion in order to bring pressure on national governments to alter particular policies.¹⁶

Some of these actors respond more willingly to one aspect of national power than to another. Multinational corporations, for example, will generally react to economic factors more rapidly than the United Nations or a national liberation movement. Conversely, negotiations and appeals to human morality may prove to be more powerful at the United Nations than in the corporate boardroom or in the field. And the allegiance of an uneducated people in a newly independent country may help create a powerful national liberation movement, yet be meaningless for a multinational corporation or the United Nations. National power, then, is contextual not only in its application to other states, but to other global actors as well.¹⁷

The Elements of National Power

It is convenient to organize the study of national power by distinguishing between natural and social determinants of power. The natural determinants (geography, resources, and population) are concerned with the number of people in a nation and with their physical environment. Social determinants (economic, political, military, psychological, and, more recently, informational) concern the ways in which the people of a nation organize themselves and the manner in which they alter their environment. In practice, it is impossible to make a clear distinction between natural and social elements. For instance, resources are a natural factor, but the degree to which they are used is socially determined. Population factors, in particular, cut across the dividing line between both categories. The number of people of working age in the population affects the degree of industrialization of a nation, but the process of industrialization, in turn, can greatly alter the composition of the population.¹⁸

Natural Determinants of Power

Geography. Geographical factors, whether they are location and climate or size and topography, influence a nation's outlook and capacity. Location, in particular, is closely tied to the foreign policy of a state. Vulnerable nations, like Poland caught geographically between Russia and Germany,

have even had to deal with the loss of national existence. Conversely, Great Britain, the United States, and Japan have been protected by large bodies of water throughout their histories. Each, in turn, used the combination of a large navy and overseas trade to become a great power. With its oceanic moats, the United States was able to follow George Washington's advice to avoid entangling alliances and expand peacefully for almost a century, free of external interference. In addition, that expansion came about primarily without conquest, through the purchase of huge land tracts from European powers that found the location of the territories too remote to defend easily.

The connection between foreign policy and location is, in fact, so fundamental that it gave rise in this century to geopolitics as a field of study. At its most extreme, geopolitics can succumb to Morgenthau's "Fallacy of the Single Factor" or be distorted as it was at the hands of Karl Haushofer and his disciples into a kind of political metaphysics with a call for adequate national living space (*Lebensraum*) that was put into ideological service for Nazi Germany. At its best, geopolitics has many insights to offer. Consider, for instance, the connection between the British and American development of democracy and civil rights and the relatively secure strategic locations of both countries, as opposed to the authoritarian regimes of Germany and Russia, direct neighbors for much of history, lying exposed on the North European plain. Or consider the continuing Russian drive for warm-water ports and the continuing value of choke points, as was demonstrated when Egypt's closure of the Straits of Tiran in May 1967 led to war. The persistence of this field of study was reflected in the Cold War by Raymond Aaron, who described the forward deployment of US troops as analogous in geographical terms to earlier British policy:

In relation to the Eurasian land mass, the American continent occupied a position comparable to that of the British Isles in relation to Europe: the United States was continuing the tradition of the insular state by attempting to bar the dominant continental state's expansion in central Germany and in Korea.¹⁹

Location is also closely tied to climate, which in turn has a significant effect on national power. The poorest and weakest states in modern times have all been located outside the temperate climate zones in either the tropics or in the frigid zone. Even Russia has chronic agricultural problems because all but a small part of that country lies north of the latitude of the US-Canadian border. Russia is also a good example of how geographical factors such as size and topography can have advantages and disadvantages for a nation. The Soviet Union, with its 11 time zones, was able to use its vast size during World War II to repeat the historical Russian military method of trading space for time when invaded. At the same time, that immense size certainly played a role in the complex ethnic and political centrifugal forces that eventually pulled apart the Union of Soviet Socialist Republics. In a similar manner, the predomi-

nantly north-south Russian rivers are great natural resources that would have been economically and politically more valuable had they run in an east-west direction. In the future, technology may mitigate some of these factors in the same way that intercontinental missiles affected the importance of insular locations. But here, as in other areas, there are many geographical obstacles to the acquisition of power that are costly or impossible to overcome.²⁰

Population. Demographics in the form of size, trends, and structure are an important aspect of national power. A large population is a key prerequisite, but not an automatic guarantee of strength. Thus, there is Canada, more powerful than the more populous but less industrialized Mexico. And Japan, with a small population marked by widespread technical skills, has been able to exercise national power far in excess of China for all its masses. At the same time, trends in population growth and decline can have significant effects on national power. The Prussian unification of the German-speaking peoples in 1870, for example, instantly created a great power with a population that grew by 27 million between then and 1940, even as that of France reflected the shift in European power, increasing by only four million in the same period. In another example, the historical increase in American power was partly due to the arrival of more than 100 million immigrants between 1824 and 1924. During the same century, Canada and Australia, comparable in territory and developmental level but with populations less than a tenth of America's, remained secondary powers. That such trends could have more complex causes dealing with other elements of power was illustrated by the Austro-Hungarian Empire, which had a large and growing population during most of that period, but also remained a secondary power because it was divided ethnically, weak politically, and at an extremely low level in terms of industrial development.²¹

In the future, global trends also will affect the structure and balance of national populations, particularly those of the poorest countries. In 1830, the global population reached one billion for the first time; it required 100 years to double. It took only 45 more years (1975) for the population to double again to four billion. In the next 21 years the population increased almost two billion, reflecting a growth rate of about 90 million a year. For the next several decades, 90 percent of this growth will occur in the lesser-developed countries, many already burdened by extreme overpopulation for which there is no remedy in the form of economic infrastructure, skills, and capital.²²

Population structure and balance are also significant for developed nations. Important here is the percentage of the population in the most productive cohort, generally considered to be somewhere between the ages of 18 and 45, that can best meet the needs of the nation's military and industry as well as create the following generation. Comparing the numbers in this group to those in the younger cohort also provides a more accurate picture of population trends and the interaction of demographics with all power elements. Israel, for example, has to deal with its relatively small population and the fact that the military siphons

off a significant segment of the civilian workforce in the middle cohort. One consequence is government emphasis on education across all age groups. Another is the government's military focus on sophisticated weaponry, mobility, air power, and the preemptive strike in order to avoid drawn-out land warfare that could be costly in manpower. Finally, a comparison of the middle population group to the older will provide a picture of trends that can have significant consequences for a nation's power. For example, any nation with an increasing cohort of retired people coupled with generous social welfare benefits will eventually have to face hard choices between guns and butter on the one hand, and possible limits to its national power as well as to its investment and economic growth potential on the other. These choices already face the United States as the "baby boomer" generation approaches retirement age against the backdrop of a staggering explosion in social entitlements.²³

Natural Resources. Large amounts of natural resources are essential for a modern nation to wage war, to operate an industrial base, and to reward other international actors through trade and aid, either in modern industrial products or in the raw materials themselves. But these resources, whether they be arable land and water or coal and oil, are unevenly distributed around the world and are becoming increasingly scarce. Moreover, as in the case of the geopolitical ownership of strategic places, the physical possession of natural resources is not necessarily a source of power unless a nation can also develop those resources and maintain political control over their disposition. In their raw state, for example, minerals and energy sources are generally useless. Thus, the Mesabi iron deposits had no value to the Indian tribes near Lake Superior, and Arabian oil a century ago was a matter of indifference to the nomads who roamed above it. Conversely, those nations with great industrial organizations and manufacturing infrastructures have traditionally been able to convert the potential power of natural resources into actual national power.

Very few nations, however, are self-sufficient. A country like the United States has a rich store of natural resources, and yet may be dependent on imports because of its voracious consumption. Japan, on the other hand, has few natural resources; it is dependent on imports for 100 percent of its petroleum, bauxite, wool, and cotton; 95 percent of its wheat; 90 percent of its copper; and 70 percent of its timber and grain.²⁴ Nations have traditionally made up for such difficulties in several ways. One time-honored method is to conquer the resources, a principal motivation for the Japanese expansion that led to World War II and the Iraqi invasion that led to the Gulf War. A second method is to develop resources in another country by means of concessions, political manipulation, and even a judicious use of force—all used earlier to considerable effect by the United States in Latin America. In an age of increasing interdependence, this type of economic penetration has long since lost its neocolonial identity, particularly since both of America's principal World War II adversaries now regularly exercise such penetration in the United States.

The third and most common method for obtaining natural resources is to buy them. In recent years, however, the combination of rapid industrial growth and decline of resources has changed the global economy into a seller's market, while providing considerable economic leverage to nations in control of vital commodities. OPEC's control of oil, for example, provided its members influence all out of proportion to their economic and military power. A similar transformation may occur in the future with those nations that are major food producers as the so-called "Green Revolution" faces the prospect of more depleted lands and encroaching deserts. Finally, there is the short supply of strategic and often esoteric minerals so necessary for high technology and modern weapons. One consequence of this diminishment of raw materials has been the emergence of the sea bed, with its oil and manganese reserves, as a new venue of international competition, in which those nations with long coastlines and extensive territorial waters have the advantage. Such shortages are a reminder of how closely connected is the acquisition of natural resources to all the elements of power, particularly for a truly dependent nation like Japan, which can neither feed its people nor fuel its high-technology economy without access to overseas markets. Absent its alliance with the United States as a means to ensure its access to such resources as Persian Gulf oil, Japan would be forced to expand its "self-defense" military force, perhaps even becoming a declared nuclear power.²⁵

Social Determinants of Power

Economic. Economic capacity and development are key links to both natural and social determinants of power. In terms of natural resources, as we have seen, a nation may be well endowed but lack the ability to convert those resources into military hardware, high-technology exports, and other manifestations of power. Ultimately, however, economic development in a nation flows from the social determinants of power, whether they be political modernization and widespread formal education, or geographic and social mobility and the ready acceptance of innovation. All this, of course, is worked out against the backdrop of balanced military investment. An excess of military spending can erode the underlying basis for a nation's power if it occurs at the expense of a larger economy and reduces the national ability to invest in future economic growth. For developing countries already short of economic investment capital, military spending represents a serious allocation of resources. But even advanced countries, especially since the end of the Cold War, have to make some choices between guns and butter. Because a nation's political stability as well as the legitimacy of its government are increasingly linked to domestic economic performance, excessive military spending, as the former Soviet Union discovered, can be dangerous for large and small countries alike.

Strong domestic economies also produce non-military national power in the international arena. Leading industrial nations have available all the

techniques for exercising power, including rewards or punishment by means of foreign trade, foreign aid, and investment and loans, as well as the mere consequences their domestic policies can have on the global economy. This type of power can be weakened, however, if a nation suffers from high inflation, a large foreign debt, or chronic balance-of-payment deficits. In short, the strength of a nation's economy has a direct effect on the variety, resiliency, and credibility of its international economic options. The size of the US budget and trade deficits, for example, means that the Federal Reserve must maintain interest rates high enough for deficit financing, which limits its ability to stimulate the economy with lower rates. And American foreign aid is becoming less influential as an economic instrument of power as budgets decline. On the other hand, US trade policy has become increasingly important to the US economy, with American exports, as an example, expected to create 16 million jobs by the year 2000.²⁶ That such economic considerations are closely inter-related to other elements of power is demonstrated by the perennial question of whether most-favored-nation status, which is nothing more than normal access to US markets, should be made conditional on progress in human rights by countries such as China.

Finally, increasing interdependence has caused major changes in the economic element of national power. National economies have become more dependent on international trade and on financial markets that have become truly global in scope. This in turn makes it more difficult for a nation to raise short-term interest rates or to coordinate monetary policy with other international actors. In a similar manner, the ability of nations to use exchange rates to further their national interests has declined as governments deal more and more with international capital flows that dwarf the resources available to any nation to defend its currency. From a security perspective, this type of economic interpenetration is reflected in the mutual vulnerability of national economies. Moreover, a nation's economic policy is now influenced by myriad international governmental organizations such as the International Monetary Fund (IMF) and the General Agreement on Tariffs and Trade (GATT), while multinational corporations stand ready to manipulate the domestic politics of nation-states to further their transnational interests.²⁷

Military. Military strength is historically the gauge for national power. Defeat in war has normally signaled the decline if not the end of a nation's power, while military victory has usually heralded the ascent of a new power. But military power is more than just the aggregation of personnel, equipment, and weaponry. Leadership, morale, and discipline also remain vital factors of military power. Despite rough quantitative parity between the Iraqi military and the allied coalition, the dismal Iraqi performance in the Gulf War demonstrated the enduring relevance of those intangibles. That performance also showed how political interference or the gradual infection of a nation or its military by incompetence, waste, and corruption can weaken a nation's armed forces. By

contrast, there is the example of the US military working over the years in tandem with political authorities to move from the hollow force of the immediate post-Vietnam period to the joint military machine of Desert Storm.²⁸

The Gulf War also highlights how important power projection and sustainability are in the modern era for military effectiveness. For a global power like the United States, the focus on these factors produced not only the unique air and sea lift capability that provided transportation for a half million troops to the Persian Gulf in 1990-91, but incredible resupply feats in an environment in which a single division during the 100-hour ground offensive consumed 2.4 million gallons of fuel, brought forward in 475 5000-gallon tankers.²⁹ Allied to these factors, of course, are readiness considerations ranging from training and maneuver opportunities to the availability of fuel and repair parts. In a similar manner, a nation's potential for rapid mobilization may also play a key role. Israel, for example, has a permanent force of only 164,000 highly trained and ready soldiers. But that force can be augmented within 24 hours by almost three times that many combat-ready troops. And Sweden has the capability to mobilize a force almost overnight that can equal many European standing armies.³⁰

The quality of arms technology also has become a vital military factor for all nations in a period marked by rapid and important scientific breakthroughs. Timely inventions ranging from the crossbow to the airplane have often been decisive when accompanied by appropriate changes in military organization and doctrine. When these two components lag technological change, however, as they did in the American Civil War and World War I, the results can be horrific diminishment and waste of military power. In addition, new technologies in the hands of rogue states or non-state actors such as terrorist groups will continue to be an important consideration for nations in the exercise of military power. Weapons of mass destruction are and will probably continue to be of primary concern in this regard. But even relatively cheap, recently developed conventional weapons in the appropriate situation can be decisive, as was illustrated by the American-built, shoulder-fired Stinger anti-aircraft missiles that enabled the Afghan *mujahedeen* guerrillas to neutralize Soviet air power. Finally, technological advances are a useful reminder once again that military power, like all elements of national power, is contextual. Technology is not an automatic panacea for producing quick victories and low casualties, particularly absent clear political direction and coherent strategy. There comes a time, as Britain's thin red line discovered under the weight of the Zulu offensive at Isandhewana, when quantity has a quality all its own.³¹

Political. This element of power addresses key questions, many of which are related to the psychological element: What is the form of government, what is the attitude of the population toward it, how strong do the people want it to be, and how strong and efficient is it? These questions cannot be answered

with simple statistics, yet they may be paramount in any assessment of national power. If a government is inadequate and cannot bring the nation's potential power to bear upon an issue, that power might as well not exist. Nor can an analysis turn upon the type of government a state claims to have, for even the constitution of a state may be misleading. The 1936 Soviet Constitution, for example, was a democratic-sounding organic law that had little in common with the actual operation of the Soviet regime. And the German Weimar Constitution, a model of democratic devices, did not prevent Hitler from reaching power and from creating his own "constitutional law" as he proceeded.

What is clear is that the actual forms of government, each with its own strengths and weaknesses, play a role in the application of national power. An authoritarian system, for instance, restricts in varying degrees individual freedom and initiative, but permits formulation of a highly organized state strategy. Democratic systems, by comparison, require policy formation by consensus-building and persuasion in an open, pluralistic society. Consequently, it is extremely difficult for democracies to develop and implement a long-range state strategy or to change policy direction as abruptly as, for example, Nazi Germany and the USSR did in the ideological volte-face marked by the August 1939 non-aggression treaty. In addition, the level of political development within a state is also important. This development involves both the capability, and more particularly the efficiency and effectiveness, of a national government in using its human and material resources in pursuit of national interests. Thus, administrative and management skills are crucial if a nation is to realize its full power potential.

A government also takes the shape and operates the way it does for very complex reasons, many of which reflect the experience of a people and their attitude toward, and expectations of, what the government is to do and how strong, as a consequence, it should be. For example, a fear of too much state power caused the Founding Fathers deliberately to make the United States government inefficient (in the sense of a quick, smooth operation) by means of "checks and balances." In a similar manner, the French fear of a "man on horseback" in the wake of their second experience with Bonapartism caused a curtailment of executive powers that resulted in the weakness of the French governments after the Franco-Prussian War. Under both the Third and Fourth French Republics, as a result, the French strengthened the legislative branch to a degree that made strong executive leadership almost impossible. The French preferred to suffer the executive weakness rather than run the risks entailed in a strong government. Consequently, while the United States had 14 administrations between 1875 and 1940, and the British 20, France had 102. After World War II, the Fourth French Republic averaged two regimes a year.³²

Psychological. The psychological element of power consists of national will and morale, national character, and degree of national integration. It is this most ephemeral of the social power determinants that has repeatedly

caused nations with superior economic and military power to be defeated or have their policies frustrated by less capable actors. Thus there was Mao's defeat of Chiang Kai-shek when Chiang at least initially possessed most of China's wealth and military capability, the ability of Gandhi to drive the British from India, and that of Khomeni to undermine the Shah. And it is almost a cliché that any measurement of US economic and military power vis-à-vis that of the North Vietnam-Vietcong combination during the late 1960s would have led to the conclusion that US superiority in these two categories would result in an American victory. Harry Summers recounts a story, in this regard, that was circulating during the final days of the US retreat from Vietnam:

When the Nixon Administration took over in 1969 all the data on North Vietnam and on the United States was fed into a Pentagon computer—population, gross national product, manufacturing capability, number of tanks, ships, and aircraft, size of the armed forces, and the like.

The computer was then asked, "*When will we win?*"

It took only a moment to give the answer: "*You won in 1964!*"³³

National will and morale are defined as the degree of determination that any actor manifests in the pursuit of its internal or external objectives. For a given international actor, however, will and morale need not be identical at all levels of society. During 1916 and early 1917, the Russian nobility continued to plan for new offensive action even as Russian troops were abandoning their weapons and their battlefield positions. National character has an equally complex relation to national power inasmuch as that character favors or proscribes certain policies and strategies. Americans, for example, like to justify their actions. Thus, the United States did not enter World War I until Wilsonian idealism had to confront the loss of American ships and American lives. The elevation of "moralism" in the conduct of foreign policy, in turn, diminishes the ability of the United States to initiate a truly preemptive action. In the Cuban missile crisis, for example, the choice of a blockade over an air strike was based in part on the argument that from the standpoint of both morality and tradition, the United States could not perpetrate a "Pearl Harbor in reverse."³⁴ In all such cases, as with will and morale, it is extremely difficult to identify the constituent parts of and sources behind national character. Historical experiences and traditional values undoubtedly are important, as are such factors as geographic location and environment. Russian mistrust of the external world, for instance, is historically verifiable as part of the national character, whether it is because of the centuries of Tartar rule, three invasions from Western Europe in little more than a century, or something else. And Russian stoicism is a character trait, whether the cause is Russian Orthodox Christianity, communism, or the long Russian winters.³⁵

Finally, there is the degree of integration, which refers simply to the sense of belonging and identification of a nation's people. In many ways, this contributes to both national will and morale as well as character. In most cases there is a direct correlation between the degree of perceived integration and the extent of ethnic, religious, linguistic, and cultural homogeneity, all of which contribute to a sense of belonging, manifested in a sense of citizenship. On the other hand, despite examples to the contrary (Belgium, Canada, and the states of the former Yugoslavia), a lack of integration need not necessarily cause a lack of identity. Swiss unity has continued across the centuries despite low degrees of integration in ethnicity, language, and religion.³⁶

Informational. The communications revolution, which began over a century ago with the advent of global transmission of information, has taken on new momentum in recent decades with the development of fax machines, television satellites, and computer linkages. As the revolutions in Central and Eastern Europe demonstrated in the fall of 1989, a new fact of life in the international arena is that it is no longer possible for any nation-state to deny its citizens knowledge of what is taking place elsewhere. Ideas, in other words, move more freely around the world than at any other time in the past. This has had particularly fortunate results for the United States. Even as some other aspects of power have gone into relative decline, America's influence as a source of ideas and as a shaper of culture has increased. This "soft power," in Joseph Nye's words, has been a major factor in formulating the US national security strategic objective of "enlargement."³⁷ So in one sense, information has contributed to the concept of the world as a global village.

This combination of enhanced communication and dissemination of information, however, is a two-edged sword that cuts across all the social determinants of power in national strategy. In the economic realm, for instance, global interdependence has been enhanced by information-communication improvements. On the other hand, near instantaneous downturns of major economies are always a possibility with the immediate transmission of adverse economic news concerning any nation-state or transnational economic actor. Politically, instantaneous and pervasive communication can enhance the ability of governmental elites to lead the people in a democracy or to act as a national consoler in times of tragedy, such as the *Challenger* explosion or the Oklahoma City bombing. At the same time, these developments can also aid the demagogues, the great simplifiers always waiting in the wings to stir fundamental discontents and the dark side of nationalism. In terms of psychological power, Winston Churchill demonstrated repeatedly that the pervasive distribution of targeted information can have momentous effects on intangibles such as national will. Conversely, however, this type of ubiquity has the pernicious potential of altering in a matter of years basic values and cultural beliefs that take generations to create.

Nowhere is the effect of developments in communications and access to information more far-reaching than on warfare. In the purely military realm, information dominance can create operational synergies by allowing those systems that provide battlespace awareness, enhance command and control, and create precision force to be integrated into the so-called "system of systems." One result of all this is to compress the strategic, operational, and tactical levels of war, previously considered as separate and distinct loci of command and functional responsibilities. The commander will be faced in the future with the much more complex job of recognizing those events occurring simultaneously at all three levels and integrating them into the calculation that results from the traditional consideration at the operational level of which tactical battles and engagements to join and which to avoid. Equally important, shorter time for decisions—occasioned by both the compressed continuum of war and electronically gathered information—means less time to discover ambiguities or to analyze those ambiguities that are already apparent.

At the higher level of cyberwar, the two-edged potential of communications and information is even more evident. In the future, nations will wage offensive information warfare on another state's computer systems, targeting assets ranging from telecommunications and power to safety and banking. Such an onslaught could undermine the more advanced aspects of an adversary's economy, interrupt its mobilization of military power, and by affecting the integrity of highly visible services to the population, create almost immediate pressure on government at all levels. As activities rely increasingly on information systems rather than manual processes and procedures, information infrastructures of the most developed nations, such as the United States, become progressively more vulnerable to state and non-state actors. Even as there are advances in information security technologies, hacker tools are becoming more sophisticated and easier to obtain and use. One analyst concludes in this regard that, for the United States, "the possibility of a digital Pearl Harbor cannot be dismissed out of hand."³⁸

Evaluation

Evaluation of national power is difficult. The basic problem, as we have seen, is that all elements of power are interrelated. Where people live will influence what they possess; how many they are will influence how much they possess; what their historical experience has been will affect how they look at life; how they look at life will influence how they organize and govern themselves; and all these elements weighed in relation to the problem of national security will influence the nature, size, and effectiveness of the armed forces. As a consequence, not only must each separate element be analyzed, but the effects of those elements on one another must be considered. These complexities are compounded because national power is both dynamic and relative. Nation-states and other international actors change each day in po-

tential and realized power, although the rate of change may vary from one actor to another. And because these changes go on continually, an estimate of a state's national power vis-à-vis the power of another actor is obsolescent even as the estimate is made. The greater the rate of change in the actors being compared, the greater the obsolescence of the estimate.

In other words, like all strategic endeavors, more art than science is involved in the evaluation of where one nation-state stands in relation to the power of other regional and global actors. This has not deterred one former government official from creating a formula to develop a rough estimate of "perceived" national power—focused primarily on a state's capacity to wage war.³⁹

$Pp = (C + E + M) \times (S + W)$ in which:

Pp = Perceived power

C = Critical mass: population and territory

E = Economic capability

M = Military capability

S = Strategic purpose

W = Will to pursue national strategy

Regardless of its prospective contribution in calculating a Pp value, this formula has some important lessons. The more tangible elements (C, E, M) that can be objectively quantified also involve varying degrees of subjective qualifications: territory that is vast but covered with mountain ranges and has few navigable rivers; a population that is large but unskilled and uneducated; or cases in which, despite qualitative military superiority in technology and weapons on one side, the opponent is able to prevail through superior intangibles ranging from leadership to morale. Most important, by demonstrating that national power is a product—not a sum—of its components, the formula is a reminder of how important the relational and contextual aspects are. The United States discovered in Vietnam that no matter how large the sum of the more tangible economic and military capabilities in relation to an adversary, their utility is determined by the intangibles of strategic purpose and national will. Zero times any number, no matter how large, is still zero.

These considerations are particularly important in evaluating what some might consider to be irrational acts by states that use force to alter the status quo. In fact, these states may simply differ from others in the perception of low risks where others perceive high ones, rather than in the willingness to take risks. There is growing evidence that the 1990 Iraqi invasion of Kuwait falls into this category. In another era, many of Hitler's "Saturday surprises" in the 1930s were considered reckless by those who would eventually have to redress their consequences. These incidents came about, however, not because the Nazi leader willingly tolerated a high probability of conflict, but because he was certain that the other side would back down. When the German military

opposed such policies as the Rhineland coup and the *Anschluss* on the basis that they were too dangerous, Hitler did not argue that the risks were worth the prizes, but that instead, taking the social determinants of power in Germany and the other countries into consideration, the risks were negligible. In terms of the concept of gain and risk assessment displayed in Figure 1 below, Hitler's analysis of potential opposition came to rest at the MAXIMIN approach of Quadrant 2, not that of MAXIMAX in Quadrant 1.⁴⁰

		RISK	
		High (MAX)	Low (MIN)
GAIN	High (MAX)	1 (MAXIMAX)	2 (MAXIMIN)
	Low (MIN)	3 (MINIMAX)	4 (MINIMIN)

Figure 1. Gain and Risk Assessment.

In the Rhineland episode of 7 March 1936, for example, the military correlation of forces was quantifiably against Germany, as Hitler was well aware. "We had no army worth mentioning," he reflected later; "at that time it would not even have had the fighting strength to maintain itself against the Poles."⁴¹ But unlike his military advisors, who were focused firmly on French military capabilities, the Nazi leader considered other elements of power, particularly the lack of political integration and coherency in the French Popular Front government and the connection to the psychological component of French national will. As a result, he concluded that France had no intention of responding militarily to the German military incursion. On 9 March, the Wehrmacht commander received warning of impending French military countermoves and asked to withdraw troops from major cities in the Rhineland. Hitler, however, was still taking an essentially MAXIMIN (Quadrant 2) approach and correctly discounted the possibility of intervention by a French government vacillating between two incorrect positions: MAXIMAX (Quadrant 1) and MINIMAX (Quadrant 3).⁴²

Thinking In the Box

A great deal of lip service has been paid of late to the need for students of strategy to "think outside the box." The "box" in this case presumably contains the traditional approaches to those issues that affect America's national security. It is natural, of course, in a time of great change to search for a "Philosopher's Stone," or to look for the sword that can, in one clean stroke, preclude the tedious unraveling of the Gordian knot of post-Cold War strategy. And perhaps this will all be possible in an extra-box environment of the future. But such explorations cannot and should not be made until the student of

national security has learned to think inside the box, and that begins with an understanding of concepts like national power.

The concept of national power helps to provide an initial organizational focus as students deal with the deceptively simple thought process that links strategic ends, ways, and means. National elements of power, however they are described, provide the conceptual foundation for this process at the national strategic level. An understanding of the characteristics and the interrelationships of these elements allows the student to expand the process to comprehend how derivative instruments of power can be combined most effectively as policy options to achieve national strategic objectives. This is a key step in strategic maturation that will play an increasingly larger role in the future for military and civilian professionals concerned with national security strategy.

Military planners already deal with Flexible Deterrent Options, in which military instruments of power are matched with instruments derived from other elements of power. Military options in response to a challenge could include an increase in specific reconnaissance activities, the exercise of certain prepositioned equipment, or the deployment of small units. Politically, this could mean consultation by executive branch elites with congressional leaders or initiation of a specific diplomatic demarche. At the same time, economic options might include, alone or in combination, the enactment of trade sanctions, the freezing of assets, and the restriction of corporate transactions. In all this, the effectiveness of small discrete response options depends upon how well the instruments of power are wielded together. And that will depend to a great deal on how well military strategists and their civilian counterparts understand the elements of national power from which those instruments are derived.⁴³

The focus on these elements of national power as means to national strategic ends also serves as an organizational link to the overall strategic formulation process. That process begins by demonstrating how national strategic objectives are derived from national interests, which in turn owe their articulation and degree of intensity to national values. This linkage is also a useful reminder that power, the "means" in the strategic equation, ultimately takes its meaning from the values it serves. Absent the legitimation provided by this connection to national values, national power may come to be perceived as a resource or means that invites suspicion and challenge; at worst it could be associated with tyranny and aggrandizement. Without the bond of popular support and the justification that comes from an overarching purpose, national power can be quick to erode and ephemeral as a source of national security.

In the end, what takes place within the box in dealing with concepts like national power is an educational process, a not inconsiderable achievement in an era mesmerized by techno-chic innovations which tend to confuse training with that process and data collection with knowledge. The need to maintain such distinctions was summarized by Michael Howard almost 30 years ago in his report on service colleges to the British Ministry of Defence:

There will always be a prime need for the fighting leader in the armed forces; but . . . today the junior fighting leader often needs to exercise a considerable degree of independent and informed judgment . . . while the demands made on his seniors find little parallel in any civil profession. To fit officers for so testing a career . . . it is as necessary to extend their intellectual powers as it is to strengthen their moral powers and their capacity for physical endurance.⁴⁴

In the final analysis, the study of national power is a valuable educational objective because it is so difficult. Aspiring strategists must grapple with concepts that overlap, that are subjective in many cases, that are relative and situational, and that defy scientific measurement. All this teaches flexible thinking—the *sine qua non* for a strategist. In short, it is this very complexity that causes students to mature intellectually, to understand that within the box there is no such thing as a free strategic lunch. Equally important, students learn that they cannot escape these limitations by moving outside the box, a lesson that many futurists need to absorb.

NOTES

1. Thomas Hobbes, *Leviathan* (Indianapolis: Bobbs-Merrill, 1958), p. 86.
2. Hans J. Morgenthau, *Politics Among Nations: The Struggle for Power and Peace*, 4th ed. (New York: Knopf, 1968), p. 25. Although Morgenthau sees the concept of national interest defined in terms of power, much of this discussion is under a sub-heading that treats political power "As Means to the Nation's Ends." Ibid.
3. The terms were originated by James N. Rosenau, "Global Changes and Theoretical Challenges: Toward a Post-International Politics for the 1990s," *Global Challenges and Theoretical Challenges: Approaches to World Politics for the 1990s*, ed. Ernst-Otto Czempiel and James N. Rosenau (Lexington, Mass.: Lexington Books, 1989), pp. 1-20.
4. Joint Chiefs of Staff, *DOD Dictionary of Military and Associated Terms*, JCS Joint Pub 1-02 (Washington: GPO, 23 March 1994), p. 255. Realists often assert that states primarily seek power as opposed to security or autonomy. This assertion, Robert Keohane points out, is inconsistent with realist balance-of-power theory in which states "moderate their efforts when their positions are secure." Robert O. Keohane, "Theory of World Politics: Structural Realism and Beyond," *Political Science: The State of the Discipline*, ed. Ada W. Finifter (Washington: American Political Science Association, 1983), p. 515. See also Barry R. Hughes, *Continuity and Change in World Politics: The Clash of Perspectives* (Englewood Cliffs, N.J.: Prentice Hall, 1991), p. 55.
5. John Spanier and Robert L. Wendzel, *Games Nations Play*, 9th ed. (Washington: CQ Press, 1996), p. 128. See also Theodore A. Coulombis and James H. Wolfe, *Introduction to International Relations: Power and Justice*, 2d ed. (Englewood Cliffs, N.J.: Prentice Hall, 1982), p. 64. Many scholars use this broad interpretation of influence in their definition of power: "the ability to influence the behavior of others in accordance with one's own ends." A. F. K. Organski, *World Politics*, 2d ed. (New York: Knopf, 1968), p. 104, and "the ability of an actor to influence the outcomes of international events to its own satisfaction." Walter S. Jones, *The Logic of International Relations* (Boston: Little, Brown, 1985), p. 245. For arguments against mixing power and influence, see Robert A. Dahl, *Modern Political Analysis* (Englewood Cliffs, N.J.: Prentice Hall, 1976), p. 29; Daniel S. Papp, *Contemporary International Relations: Frameworks for Understanding* (New York: Macmillan, 1984), p. 308; and Michael P. Sullivan, *Power in Contemporary Politics* (Columbia: Univ. of South Carolina Press, 1990), p. 98.
6. K. J. Holsti, *International Politics: A Framework for Analysis*, 5th ed. (Englewood Cliffs, N.J.: Prentice Hall, 1988), pp. 142, 152-53. On patterns of influence, see *ibid.*, pp. 154-56. On similar methods or techniques of exercising power, see Organski, pp. 112-15. Realists, in general, treat power as the "currency of politics." Just as economists focus on the definition and variety of currency types, students of international relations define and distinguish the types of power. See, for example, Klaus Knorr, *The Power of Nations: The Political Economy of International Relations* (New York: Basic Books, 1975).
7. Carl von Clausewitz, *On War*, trans. Michael Howard and Peter Paret (Princeton, N.J.: Princeton Univ. Press, 1976), p. 119.
8. On the context of power, see Spanier and Wendzel, pp. 144-45; Papp, pp. 309-11; and Gordon C. Schloming, *Power and Principle in International Affairs* (New York: Harcourt Bruce Jovanovich: 1991), p. 528.
9. Morgenthau, p. 153; Spanier and Wendzel, pp. 128, 131; and Organski, p. 102. In English and German (*Macht*), for example, "power" indicates both capacity and the exercise of that capacity. In French, however,

there are two words: *puissance*, indicating potential or capacity, and *pouvoir*, indicating the act or the exercise of power. Dennis H. Wrong, *Power: Its Forms, Bases and Uses* (New York: Harper & Row, 1979), pp. 9-10. Frederick Hartmann deals with the distinction between potential and real in his definition of national power as "the strength or capacity that a sovereign nation-state *can use* to achieve its national interests." Emphasis in original. Frederick H. Hartmann, *The Relations of Nations*, 5th ed. (New York: Macmillan, 1978), p. 43.

10. Organski, pp. 101-02.

11. *Ibid.*, p. 121; Morgenthau, pp. 149-51; Spanier and Wendzel, p. 128; and Eugene J. Kolb, *A Framework for Political Analysis* (Englewood Cliffs, N.J.: Prentice Hall, 1978), pp. 50-52.

12. Organski, p. 110; Kolb, pp. 50-52; Morgenthau, pp. 151-53; and Schloming, p. 527. For the declinist approach to the dynamic nature of national power, see Paul M. Kennedy, *The Rise and Fall of the Great Powers: Economic Change and Military Conflict from 1500-2000* (New York: Random House, 1987); Mancur Olsen, *The Rise and Decline of Nations: Economic Growth, Stagflation, and Social Rigidities* (New Haven, Conn.: Yale Univ. Press, 1982); Aaron L. Friedberg, *The Weary Titan: Great Britain and the Experience of Relative Decline* (Princeton, N.J.: Princeton Univ. Press, 1988).

13. Organski, pp. 108-09; Spanier, p. 128; and Hobbes, p. 106.

14. Emphasis in original. Franz Halder, *The Halder Diaries: The Private War Journals of Colonel General Franz Halder*, ed. Arnold Lissance (Boulder, Colo., and Dunn Loring, Va.: Westview Press and T. N. Dupuy Associates, 1976), I, 8. After the Munich Conference, Mussolini appraised the British leaders as "the tired sons of a long line of rich men." Winston S. Churchill, *The Second World War*, Vol. I, *The Gathering Storm* (Boston: Houghton Mifflin, 1948), p. 341. On the concept of negative power as used in this context, see Holsti, p. 144, and Dahl, p. 43. On a different view of negative as well as positive power, see Organski, pp. 118-19. See also Robert Jervis, Richard Ned Lebow, and Janice Gross Stein, *Psychology and Deterrence* (Baltimore: Johns Hopkins Univ. Press, 1985).

15. Papp, p. 311; Spanier and Wendzel, pp. 144-45; Kolb, pp. 49-50.

16. Sullivan, pp. 21-24; and Papp, p. 12.

17. Barry O'Neill, "Power and Satisfaction in the United Nations Security Council," *Journal of Conflict Resolution*, 40 (June 1996), 219-37; and Papp, p. 311.

18. For the distinction between natural and social determinants of power, see Organski, chaps. 7, 8. Morgenthau, p. 106, breaks the elements down into "those which are relatively stable and those which are subject to constant change." See also Coulombis and Wolfe, pp. 65, 73-78, who break national power into two categories: tangible (population, territory, natural resources, industrial capacity, agricultural capacity, military strength and mobility) and intangible (leadership and personality, bureaucratic-organizational efficiency, type of government, societal cohesiveness, reputation, foreign support and diplomacy, accidents).

19. Raymond Aron, *Peace and War* (New York: Praeger, 1966), p. 1. See also Derwent Whittlesey, "Haushofer: The Geopoliticians," *Makers of Modern Strategy*, ed. Edward Mead Earle (Princeton, N.J.: Princeton Univ. Press, 1973), pp. 388-414; Colin S. Gray, *The Geopolitics of the Nuclear Era: Heartlands, Runlands, and the Technological Revolution* (New York: Crane, Russak, 1977); Hartmann, pp. 49-52; Morgenthau, pp. 106-08, 153; Spanier and Wendzel, p. 132; Hughes, p. 91; and Organski, pp. 126-38, who believes that geography's effect on national power has been exaggerated.

20. Schloming, p. 530. Hartmann, p. 49, believes climate is the most important geographical factor. *Life* magazine listed the air conditioner as one of the most important inventions in world history because it would enable tropical areas to begin industrialization. The shape of a nation is also important, as witness Israel's difficulty in returning to its pre-1967 configuration of long frontiers and very little depth. Spanier and Wendzel, p. 132. See also Isaiah Berlin, *Against the Current: Essays in the History of Ideas* (New York: Viking Press, 1980), p. 258, who attributes the aggressive nationalism of such leaders as Napoleon, Hitler, and Stalin to their geographical origins on the borderlands of the empires they will later rule.

21. Schloming, p. 531, and Julian L. Simon, *Population Matters: People, Resources, Environment, and Immigration* (New Brunswick, N.J.: Transaction Publishers, 1990).

22. Nafis Sadik, "World Population Continues to Rise," *The Brown and Benchmark Reader in International Relations*, 1992, ed. Jeffrey Elliott (Dubuque, Ia.: Wm. C. Brown, 1992), pp. 291-96. See also Spanier and Wendzel, pp. 135-36; Hartmann, pp. 46-49; Schloming, p. 531; Organski, pp. 153-54, and George D. Moffett, *Global Population Growth: 21st Century Challenges* (Ithaca, N.Y.: Foreign Policy Association, 1994).

23. Hartmann, p. 47; Schloming, p. 532; and Peter G. Peterson, "Will America Grow Up Before It Grows Old?" *The Atlantic Monthly*, May 1996, pp. 55-92.

24. Spanier and Wendzel, p. 139. See also Schloming, p. 531, and Organski, pp. 138-41.

25. On problems with the most basic of all resources, see Miriam R. Lowi, *Water and Power: The Politics of a Scarce Resource in the Jordan River Basin* (New York: Cambridge Univ. Press, 1995). See also Organski, p. 142; Schloming, pp. 533-34; and Morgenthau, pp. 109-12.

26. National Defense University, Institute for National Strategic Studies, *Strategic Assessment 96* (Washington: GPO, 1996), p. 49. See also Organski, p. 169. Hartmann, pp. 52-56, includes natural resources in the economic element of power.

27. *Strategic Assessment 96*, p. 51, and Schloming, p. 158.
28. For questions concerning the jointness of Desert Storm, see Michael R. Gordon and Bernard E. Trainor, *The General's War: The Inside Story of the Conflict in the Gulf* (Boston: Little, Brown, 1994). Stalin's great purges of the 1930s are an extreme example of political interference. In addition to the roughly 800,000 party members who were killed, about half of the army officer corps, some 35,000 in all, were eliminated despite the weakness it imposed on the USSR in a time of growing foreign danger. Gordon A. Craig, *Europe Since 1815* (New York: Dryden Press, 1974), p. 383.
29. US Department of the Army, FM 100-5, *Operations* (Washington: GPO, June 1993), p. 12-21. See also Spanier and Wendzel, p. 143.
30. Switzerland is another prime example with the capability of mobilizing in excess of a half million troops in less than two days. Schloming, p. 543.
31. In the subsequent battle of Rourke's Drift, of course, technology plus an inspired combination of all the intangibles ranging from leadership to unit cohesion produced a British victory in which 11 Victoria Crosses were earned. On revolutions in military affairs, see the Strategic Studies Institute monographs from the fifth annual US Army War College Strategy Conference, April 1994. See also Schloming, p. 540.
32. Papp, p. 316; Hartmann, pp. 59-60; and Morgenthau, pp. 133-35.
33. Emphasis in original. Harry G. Summers, *On Strategy: The Vietnam War in Context* (Carlisle, Pa.: US Army War College, Strategic Studies Institute, 1983), p. 11. See also Papp, p. 378.
34. Graham T. Allison, *Essence of a Decision: Explaining the Cuban Missiles Crisis* (Boston: Little, Brown, 1971), pp. 123-24. See also Papp, pp. 382-84, and Morgenthau, pp. 122-34.
35. On the Russian national character, see Morgenthau, pp. 125-27, and Papp, p. 383. On the American character, see Spanier and Wendzel, p. 186-92.
36. Papp, pp. 386-87.
37. Joseph S. Nye, Jr., *Bound to Lead: The Changing Nature of American Power* (New York: Basic Books, 1990) and "Understanding U.S. Strength," *Foreign Policy*, No. 72 (Fall 1988), 105-29.
38. *Strategic Assessment 96*, p. 197. See also *ibid.*, pp. 195-96 and chap. 15; Joseph S. Nye, Jr., and William A. Owens, "America's Information Edge," *Foreign Affairs*, 75 (March-April 1996); and Roger C. Molander, Andrew S. Riddle, and Peter A. Wilson, *Strategic Information Warfare: A New Face of War* (Santa Monica, Calif.: RAND, 1996). A recent Defense Science Board report on information warfare repeated this warning. Thomas E. Ricks, "Information Warfare Defense is Urged: Pentagon Panel Warns of 'Electronic Pearl Harbor,'" *The Wall Street Journal*, 6 January 1997, p. B2.
39. Ray S. Cline, *World Power Trends and U.S. Foreign Policy for the 1980s* (Boulder, Colo.: Westview Press, 1980), p. 13. See also Papp, pp. 308-09; Hartmann, p. 67; and Coulombis and Wolfe, pp. 66-67. For another approach to quantifying and ranking the actual and projected capabilities of states, see Karl Deutsch, *The Analysis of International Relations* (Englewood Cliffs, N.J.: Prentice Hall, 1968), pp. 21-39.
40. Robert Jervis, *Perceptions and Misperceptions in International Politics* (Princeton, N.J.: Princeton Univ. Press, 1976), p. 52.
41. Albert Speer, *Inside the Third Reich*, trans. Richard and Clara Winston (New York: Macmillan, 1970), p. 72. General von Blomberg pointed out after the war that if the French had resisted, the Germans would "have to have beat a hasty retreat." And General Keitel confided that "he wouldn't have been a bit surprised" if three battalions of French troops had flicked the German forces right off the map. G. M. Gilbert, *The Psychology of Dictatorship* (New York: Ronald Press, 1950), p. 211.
42. This did not mean that Hitler was not nervous. "The forty-eight hours after the march," he stated, "were the most nerve-wracking in my life." Allan Bullock, *Hitler: A Study in Tyranny* (New York: Harper & Row, 1962), p. 345. For additional measures Hitler took to make the operation as unprovocative as possible, see John Thomas Emmerson, *The Rhineland Crises* (Ames: Iowa Univ. Press, 1977), p. 101.
43. For the flexible deterrent options, see *The Joint Staff Officer's Guide 1993* (AFCC Pub 1) (Washington: GPO, 1993), pp. 6-11 to 6-16. For some reason, JCS currently defines *national security strategy* in terms of instruments of power (diplomatic, economic, military, and information) as the means "to achieve objectives that contribute to national security." JCS Pub 1-02, pp. 254-55. The same publication, however, defines *elements* of national power as "the means that are available for employment in the pursuit of national objectives" (*ibid.*, p. 130). The use of power elements as the "means" in the definition of *national strategy* (*ibid.*, p. 255) is in keeping with the Goldwater-Nichols terminology concerning power and strategy. Professor Michael Morin, USAWC, 21 November 1996. See also note 4.
44. Michael Howard and C. R. English, *Report of the Committee of Enquiry Into Service Colleges*, 29 July 1966. Quoted in Michael Brock, "Michael Howard's Contribution to Historical Studies," *War, Strategy, and International Politics: Essays in Honour of Sir Michael Howard*, ed. Lawrence Freedman, Paul Hayes, Robert O'Neil (Oxford, Eng.: Clarendon Press, 1992), p. 198. For the limits of technology in the classroom as a means to improve learning, see Fletcher M. Lamkin, Jr., "Academic Limits, A Vision for Teaching and Training with Technology," *Assembly*, 54 (July-August 1996), 32. Brigadier General Lamkin is the Dean of the Academic Board at the US Military Academy.

The Immutable Importance of Geography

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Contemplating geography as it relates to strategy is not an activity that most of us elect to do on a Saturday afternoon. A friend's comment comes to mind: the only thing he remembered about geography from his school experience was that he didn't like it. Indeed, too many of us have the notion that geography, and particularly strategic geography, has become a relic science of little use to the modern military professional. Since we have access to the latest developments in technology and information, who needs to know the location of the Straits of Malacca, or understand cultural settlement patterns in Africa, or know what is contained on continental shelves?¹

Students and practitioners of national security policy learn through their experience, or know through intuition, that strategy is carried out over territory and space. In the final analysis, military operations consist of controlling territory and influencing populations. The subjection of territory and populations, as well as control of the space above the territory, are geographical considerations. All this may be a bit Clausewitzian; nevertheless, few attempt to refute Clausewitz's argument that territory, people, and those who control those physical factors are the foundations upon which a successful strategy is built. Similarly, Sun Tzu argued 2000 years before Clausewitz that "the elements of the art of war are first, measurement of space; second, estimation of quantities; third, calculations; fourth, comparisons; and fifth, chances of victory." Geography for the military professional should include the study of subjects that will lend clarity to the issues of spatiality that enable calculations and comparisons. To ensure that a specific concept or plan produces the desired strategic ends, strategists should first make a determined effort to become as familiar with the fields of geography as they are with history or any other academic discipline.²

This article seeks to demonstrate the immutable importance of geography for strategists. Misunderstanding or misusing geography can confuse our thinking and thwart our best efforts at developing effective national security strategy. Knowledgeably and sensibly applied, however, geography is a discipline that can clarify strategic issues and increase the chances of success in any political, economic, or military endeavor.

Understanding and Misunderstanding Geography

Geographers have broadened what was traditionally considered their discipline, embracing climate, weather, vegetation, soils, geology, as well as the narrow specialization of place names. The discipline now boasts of regional specialists and of subfields which include economics, politics, diseases, cultures, urban studies, development, population, medicine, and even history. Indeed, the Army's regional specialty program requires incumbents to study and become familiar with many of these same disciplines, and regional specialists are an invaluable resource to the strategist. But strategists and military professionals should not relegate the study of geographic issues to the few regionalists still in uniform, Department of State specialists, or civilian academics; rather, all senior military professionals, especially those who consider strategic concerns, should have a working knowledge of the subfields of geography. Geography, in all its guises, will help them understand the changes the world is experiencing and make sense of the directions the world is taking.

Notwithstanding that geography is useful to the strategist, one should not conclude that geography determines where conflicts will occur or that it should dictate strategy. In the past century several well-known geographic determinists, including Admiral Alfred Thayer Mahan and Nicholas Spykman, developed theories from which national policies evolved. It is widely believed that Mahan was responsible for the United States' reliance on a strong navy to push the country into expanding its overseas possessions. One result was that in 1898 President McKinley ordered a US fleet of six warships to Manila Bay. Not knowing the importance of his directive, McKinley professed to reporters he had no idea where the Philippines were. "God told me to take the Philippines," he

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is quoted as saying. Only the ineptitude of the Spanish and our phenomenal luck kept the Spanish-American War from being a debacle.³

Nicholas Spykman argued in 1944 that Eurasia's periphery held the key to global power. His theories are considered by most scholars to have led to political policies that shaped strategic thinking during the Cold War with effects felt to the present decade. More recently, modern-day strategist Colin Gray dusted off the theory of Sir Halford Mackinder (1861-1947) that western Russia and Eastern Europe's protected core area, something Mackinder called the "heartland," would become the stage for world domination. Gray argued Mackinder's thesis in *The Geopolitics of Super Power* (1988), observing that "for as far into the future as can be claimed contemporarily relevant, the Soviet Union is going to remain the source of danger—narrowly to American national security, more broadly (and quite literally) to the exercise of the values of Western Civilization."⁴ Gray's book offers more than a tip-of-the-hat to Mackinder, arguing that Mackinder's ideas "provide an intellectual architecture, far superior to rival conceptions, for understanding the principal international security issues"⁵—all this only two years before the Soviet Union collapsed.

One must, of course, exercise caution in using history to explain the geographic significance of a location. In a recent issue of *MHQ*, a respected journal of military history, the editor and a contributor postulated that Jerusalem has historically been a "strategic choke point." Nothing could be further from the truth. The Suez Canal is a "strategic choke point," but not the city of Jerusalem, even in ancient history. After the Hebrew King David took Jerusalem from the Jebusites (c. 1010 B.C.), the town was of little international or regional importance. From the opening days of pre-history, Near Eastern armies had moved through the area of Palestine along coastal routes and the Megiddo Pass; they generally did not even come near to Jerusalem, or Jebus, high in the mountains above the coastal roads. Joshua, the first known leader to have tried to conquer all the region of Palestine, bypassed Jerusalem.⁶ In later history the Assyrians avoided it, and the Babylonians finally destroyed the city (587-6 B.C.) because they needed the loot and wanted to repress the troublesome people, more than to control it as a choke point.

Until the city's recent explosive growth, Jerusalem was well off the north-south watershed route and miles south of the east-west trade routes that crossed Palestine. The city is topographically well situated as a defensive location and was surrounded for many centuries in ancient times with deep valleys on three sides and had a self-contained water source. But aside from the hill itself, the city and its inhabitants never controlled (and certainly didn't choke) anything. The Romans and even Napoleon avoided Jerusalem; each comfortably commanded the area of Palestine for different lengths of time without destroying the city because of its geographic position. Jerusalem

became a *strategic location* in history not because of its topography but because of its wealth (from c. 1000 - 586 B.C.), its cultural importance, and its prominence as the locus of holy sites for three of the world's major religions. Today these same cultural issues determine the city's strategic importance as well as the fact that the city is the political and religious center of the *de jure* Jewish state and the *de facto* religious and political center of the aspiring state of Palestine.

Contemporary Geographic Issues

Strategists need to familiarize themselves with the diverse sub-fields of geography as well as the traditional concerns of physical geography. Doing so will help them to understand intertwining nation and state relationships. For example, a knowledge of environmental geography can help one understand the potential for conflict based on environmental issues. A persuasive argument has been made that environmental change could shift the balance of power between states, regionally or globally, causing instabilities that might lead to armed conflict.⁷ Warmer temperatures could cause disputes over new ice-free lanes in the Arctic, or make Antarctica's potential bonanza of natural resources more accessible, resulting in a worldwide scramble for its treasures. And if recent interpretations of the effects of "global warming" are even close to accurate, the implications for the national security of the United States are staggering. One author has put it this way:

The United States has a particularly large investment in the status quo. Its current preeminence in world affairs ultimately derives from the strength of the country's economy. The productivity of the country's natural resources, such as the incomparably valuable farmland of the Midwest, was a . . . prerequisite to America's elevation as a dominant superpower in the latter half of the 20th century. Impending climate change means this productivity can no longer be taken for granted. The greenhouse effect threatens the overall health of the American economy and will require a massive diversion of resources to non-production adaptive activities.⁸

Among the other aspects of geography that concern contemporary strategists is the issue of international water passages. There are more than 100 international straits used for navigation that are between six and 24 miles wide. These passages can correctly be called strategic choke points. The Law of the Sea Convention spells out an elaborate regime to prevent states that border these important straits from closing them to innocent passage. The United States has failed to agree to this convention, however, something that has more to do with the future exploitability of undersea manganese nodules, a potentially important economic consideration, than with national security.

Still, strategists considering plans for moving forces around the globe need to be familiar with the fact that we might not have free access to get to

“The ability to put troops on the ground, a fleet over the horizon, or cruise missiles on station in the belly of an aging B-52 does not connote sophistication in managing geopolitical issues.”

where we need to fight, including overflight permission. One needs only to remember that in 1986 the United States was unable to overfly the land territory of France and Spain, our NATO allies, to bomb Libya. Instead of our aircraft taking the most direct route from their bases in Britain to their targets, the pilots had to circle west of Spain, thread the needle over the Straits of Gibraltar, strike the target, and return the same way, adding needless hours to the mission and increasing the risk to the crews.

All too often we take for granted the right of free access in planning for and sustaining interventions. Consider just the tonnage of munitions that was moved by sea to Saudi Arabia in 1990-91. Then calculate the number of air sorties that would have been required to move only the highest priority munitions had we been denied access to the Straits of Gibraltar and Hormuz. Issues involving the Law of the Sea come up frequently and have led to square-offs between NATO allies as well as legal disputes between the United States and friendly nations. Should we expect the future to be significantly different?

Interrupting historical water sources is another issue that could lead to conflict. One author has noted that “so critical are assured water supplies to Israel that one reason it went to war in 1967 was that Syria and Jordan were trying to divert flows of the Jordan River. Israel receives about 60 percent of its water from the Jordan River, [but] only three percent of the river’s basin lies within the country’s pre-1967 territory.”⁹ It is interesting to note that Article 6 of the 1994 Israel-Jordan Treaty was a delineation of water sources, whereas Article 9 dealt with “Places of Historical and Religious Significance.”¹⁰ Jordan is one of the driest countries on earth and has less water than its neighbors or any of the states of the Sahara.¹¹ A strategist might be led to believe that historical sites and land are the only issues at stake in the Israeli-Palestinian dialogues. The media has rarely mentioned that water is of significant concern to all in the region.

Another serious contemporary geographical issue is that of world food production. Our recent inconclusive involvement in Somalia was a direct result of public pressure to alleviate suffering by the inhabitants of that state.

There, as in many other situations, the world has seen that a drop in food production will result in waves of refugees which can possibly lead to conflicts. However, how many strategists will consider such issues when they wrestle with America's security policies in the next century?

Despite the propensity of the United States to use or threaten the application of military force since becoming the world's sole surviving superpower, international conflicts will inevitably involve allies or friends on the other side of the problem. For example, understanding where the major river systems in the Middle East flow, and through which countries they travel, can help strategists foresee problems that could arise from dams being constructed in Turkey and elsewhere. Issues such as these require a knowledge of geography if they are to be anticipated, understood, and settled to our advantage.

Strategic thinking will often require more options than the direct application of force in solving problems. The ability to put troops on the ground, a fleet over the horizon, or cruise missiles on station in the belly of an aging B-52 does not connote sophistication in managing geopolitical issues. Deep and abiding interest in all forms of geography, however, can help the strategist address problems in ways that involve all the elements of national power in a search for peaceful outcomes.

Understanding Cultures

Strategists should also become more familiar with the cultural differences among the people of the world, a major and growing field of geography. A step toward enlightening the military profession was provided by Paul M. Belbutowski's article, "Strategic Implications of Cultures in Conflict" in the Spring 1996 issue of *Parameters*.¹² In that same issue, Major Ralph Peters pointed out in dramatic fashion that the geography of future conflicts may well be the milieu for which we are the least prepared: the cities and urban complexes of the developing world. As the United States discovered in Somalia, even a poor and desolate city like Mogadishu, with an estimated population of only 600,000, can confound our strategic and operational planning. Similarly, the Soviets paid the price of trying to operate in Kabul, a city with twice that population, using doctrine developed to stop NATO forces in Europe.

In Jeffrey Record's recent article critiquing theories of whether the United States could have won in Vietnam, he concludes that "the US war effort was compromised not only by failure to appreciate the complexity and evolution of the war's character, but also by a fundamental ignorance of the country, its history, and culture."¹³ Samuel P. Huntington's seminal article, "The Clash of Civilizations?" also pointed to the importance of understanding cultures. Huntington stirred academic strategists out of their lethargy in 1993 when he argued that "in the future, the world will be shaped in large measure by the interactions among seven or eight major civilizations," which he identified as

"Western, Confucian, Japanese, Islamic, Hindu, Slavic-Orthodox, Latin American, and possibly African."¹⁴ He made his point that over the centuries, "differences among civilizations have generated the most prolonged and the most violent conflicts."¹⁵ Long-running conflicts between Islamic and other groups in the Philippines and Indonesia underscore the accuracy of Huntington's insights, while events in the Balkans since 1991 have not seriously challenged his thesis.

Despite the commitment of US lives and treasure to the effort to solve the Balkan problems and despite the decision by the President in 1995 to deploy thousands of American fighting men and women to that region, how many US politicians or interested citizens have developed even an inkling of the morass of cultural, religious, and ethnic differences existing there? Might a greater general awareness have changed US policy? Might it at least have forced clearer expectations of the limits of our interest and the duration of our involvement there? Attempts to explain our presence as "in the American interest" still fall on unbelieving ears. Perhaps that would change if military strategists and national security policymakers could better comprehend and articulate the importance of cultures, ours as well as others', in our policy considerations.

Geography and Policy

Martin van Creveld makes the point in his book, *The Transformation of War*: "The logic of strategy itself requires that the opponent's motives be understood, since on this rests any prospect of success in war. If, in the process, the notion of interest has to be thrown overboard, then so be it."¹⁶ Although one could take issue with the implication that the United States can long maintain troops in the field without a credible national interest at stake, Van Creveld is certainly right that an opponent's motives must always be understood. However vital, this is a difficult task and one that American strategists and historians do not do well.

The British Falkland Islands War provides a case in point. In 1982, 14,000 Argentine soldiers seized the undefended Falklands, 250 miles off the Argentine coast, from the British, who in 1833 had taken control of the windswept, barren islands best known for harboring penguins, seals, and other marine life. Textbooks have struggled to explain why the British went to war—undertaking a conflict ultimately costing hundreds of British and Argentine lives, the sinking of British and Argentinean warships, and enormous sums of money. One text explains the British involvement in this remarkable fashion: "Ponder, for example, the Falkland Islands War and the venerable British lion's defense of its territory. Male lions mark off their territory by scenting it. Woe betide any other male lion who enters that claimed space!"¹⁷ Such observations, offered in a textbook to explain a major strategic move on the

“Consideration of the many subfields of geography may help US national leaders and military strategists both to develop sound policy and to focus and explain our national strategies in terms acceptable to the American public.”

part of a NATO ally, defy reason and logic. They are an affront to common sense and to the intelligence of our students.

Unfortunately, few monographs or articles address the strategic issues at stake in the Falkland Islands War, which permits such facile fabrications as the preceding to fill the void in attempting to explain strategic issues. Some legitimate writers have rationalized that the war amounted to little more than a waning Great Britain asserting her sovereign rights. But this argument hardly seems logical since barely three decades previously the British had voluntarily given up much greater territorial holdings around the world. Why would Britain risk a war, and her strategic reputation, by going halfway around the world to contest a few pieces of rock in the South Atlantic? Honor? Hardly! Geography, on the other hand, can provide some reasons, if not an answer.

The Falklands rise up from one of the world's most extensive underwater continental shelves, a landform rich with potential oil deposits, whose surrounding seas teem with life and nutrients. Britain's desire to protect a potential international economic treasure, rather than glib explanations or half-baked theories of biological relativism, offers the more reasonable explanation for the loss of British (not to mention Argentine) lives. The ageographical quality of our world causes many of us to overlook the geographical motives for behavior, including the fact that the Falklands are in close proximity to resource-rich Antarctica, another probable reason for the short but nasty 1982 war. The likelihood of oil deposits in the South China Sea, the uses of outer space, and the rise of the region-state are other aspects of the influence of geography on strategy that seldom receive their due.¹⁸

Outcomes

Consideration of the many subfields of geography may help US national leaders and military strategists both to develop sound policy and to focus and explain our national strategies in terms acceptable to the American public. Recently, we have seen America's reluctance to intervene militarily in states whose behavior does not seem to threaten our national security. This

attitude can be traced to the concept that our military forces exist to protect and uphold our national purposes. Our national security leaders have had to scramble to justify costly foreign interventions because they have been unable to articulate how such adventures serve our national values and purposes. As a result, they have sometimes appealed either to the country's lack of understanding of world geography or tried to stimulate a messianic excuse for the resulting operation.

If Americans had realized where Somalia was located, or how large it is (placed on a map of the United States, it covers an area from southern Michigan east to Maine and south to northern Florida), would they have been so passive about sending our forces to that country? Today, two years after thousands of personnel were deployed to the former Yugoslavia, how many US citizens can identify the nationalities involved or articulate how our national purpose is served other than to "prevent further fighting between the various factions"? Until the public decides to learn for itself what it needs to know about security issues, our long-standing ignorance of all aspects of geography will keep us equally ignorant of the real issues in such decisions. Strategists need to assume the responsibility to educate themselves so that they can provide effective counsel in the development of national security policy. No one is going to show them why it is that our ability to intervene militarily (as we discovered in Somalia) is constrained by geography.

In a recent article, Peter Wooley served the profession well by beginning an examination of geographic variables (access and isolation) to help analysts and policymakers explain if, and how, the nation might intervene militarily in international crises.¹⁹ Wooley makes a strong case that "students of foreign policy and national security would do well to refocus on geography as an essential element of analysis, prediction, and policy recommendation."²⁰ Similarly, Colin Gray points out in a recent article that

The argument is neither that geographical setting determines policy and strategy in some all-but-mystical way, nor that the implications of that setting remain constant as technology evolves, but rather that geographical factors are pervasive in world politics. Geography defines the players (which are territorially organized states, or would like to be), frequently defines the stakes for which the players contend, and always defines the terms in which they measure security relative to others.²¹

These two sources alone would be a good place to begin one's education.

It is important for strategists to refamiliarize themselves with the physical makeup of our globe—with distances, populations, cities, transportation hubs, routes of communication, and cultures. The wise questions used to develop strategy—the reasons why and where the United States will go to war in the coming years—will need to be probed by military strategists. They, along with our political leaders and the public, need to resist the temptation to

believe that the American military can do anything, anywhere. It can't. Geography should be among the prominent disciplines that strategists use to determine just what we can do, and where.

NOTES

1. Some of this ambivalence can be attributed to the demise of geography as a curricular course of study in favor of "social studies." (As I describe in this article, there is much overlap, with the definition of "geography" now expanding beyond considerations of land and water to include aspects of cultures, politics, and history.) Thirty years ago educators believed teachers of geography did not require special training, and geography could be taught by teachers whose own fields were history, civics, or even coaching. Now, the American public's geographic illiteracy has become a common complaint, often made by the same planners who pushed geography into the social sciences programs and concurrently eliminated secondary teacher education requirements.

Unfortunately, this ageographical attitude is not just with those who finish secondary schools. I teach geography to upper-division (junior-senior) and graduate college students. Students who will become primary and secondary education teachers frequently take my class to obtain credit for the one required geography course they must have for state certification. Over the past few years, on the first day of class, I have given them a short diagnostic test to determine their geographic literacy. One question is: "Name the large country immediately south of Texas." My respondents, admittedly an unscientific sample of the universe, have been unable to respond correctly (that is, to even name *any* country south of Texas) one-third of the time. Further, when I review the preparation of my students, fully two-thirds have never taken a geography course in their scholastic careers.

2. My point here is not to argue that the strategist should study geography at the expense of any other academic discipline. It is trite but true that all academic disciplines are complementary and useful for the strategist. For example, history examines issues over time, but geography examines issues spatially. History is useful in understanding the genesis, evolution, and resolution of issues; however, geography can be used to examine how those same events relate with each other economically, culturally, politically. Combining the two disciplines allows the strategist to learn what has and has not worked in previous instances, and geography may reveal the hidden relationships that led to the outcomes described by the historian.

3. George J. Demko, *Why in the World: Adventures in Geography* (New York: Doubleday, 1992), p. 15.

4. Colin S. Gray, *The Geopolitics of Super Power* (Lexington: Univ. of Kentucky Press, 1988), pp. 1-2. Emphasis in original. See my review, "Seductive Reasoning Behind 'Dynamic' Strategy," *Army*, September 1988, 77-78.

5. *Ibid.*, p. 4.

6. "Judah could not dislodge the Jebusites, who were living in Jerusalem; to this day the Jebusites live there with the people of Judah." Joshua 15:63, NIV.

7. See David Wirth, "Climate Chaos," *Foreign Policy*, 74 (Spring 1989), 3-22. For an analysis of the current state of the global warming debate, see Shawna Vogel, "Has Global Warming Begun?" *Earth*, December 1995, pp. 24-35.

8. Wirth, p. 11.

9. Norman Myers, "Environment and Security," *Foreign Policy*, 74 (Spring 1989), 28.

10. *The New York Times*, 27 October 1994, p. A-13.

11. "Raising the Dead Sea," *New Scientist*, 22 (July 1995), 32-37.

12. Paul M. Belbutowski, "Strategic Implications of Cultures in Conflict," *Parameters*, 26 (Spring 1996), 32-42.

13. Jeffrey Record, "Vietnam in Retrospect: Could We Have Won?" *Parameters*, 26 (Winter 1996-97), 55.

14. Samuel P. Huntington, "The Clash of Civilizations?" *Foreign Affairs*, 72 (Summer 1993), 25.

15. *Ibid.*

16. Martin van Creveld, *The Transformation of War* (New York: The Free Press, 1991), p. 217.

17. John T. Rourke, *International Politics on the World Stage* (4th ed.; Guilford, Conn.: Dushkin Publishing Group, 1993), pp. 117-18.

18. Two recent articles which address this interesting geopolitical development are: Robert D. Kaplan, "The Coming Anarchy," *Atlantic Monthly*, February 1994, pp. 44-76; and Kenichi Ohmae, "The Rise of the Region State," *Foreign Affairs*, 72 (Spring 1993), 78-87.

19. Peter J. Wooley, "Geography and the Limits of US Military Intervention," *Conflict Quarterly*, 11 (Fall 1991), 35-50.

20. *Ibid.* p. 35.

21. Colin Gray, "The Continued Primacy of Geography," *Orbis*, 40 (Spring 1996), 248-49.

The Strategic Importance of Water

KENT HUGHES BUTTS

"The next war in the Middle East will be over water, not politics."

— Boutros Boutros-Ghali, 1991

Geographical variables and their importance to international relations and political military affairs are easily ignored, even though two events of the 1970s drew the attention of policymakers to the issue of resource availability with an urgency unknown in peacetime. The first was the Arab oil embargo of 1973-74; the second was the 1978 invasion of Zaire's Shaba province by Angola-based guerrillas. The former quadrupled petroleum prices and reminded producers and consumers alike that the world economy depended on the highly concentrated deposits of this increasingly scarce fossil fuel. In the latter case, even the brief curtailment of cobalt shipments from Zaire caused prices to escalate from \$6 to over \$50 per pound on the spot market. Disruption of the cobalt market forced a wide-scale reevaluation of the concept of strategic resources. In the United States, the review included non-fuel minerals essential to US industry, such as chrome, manganese, and platinum group metals, virtually 100 percent of which are imported. Analysts were reminded that, as with petroleum, world reserves of these minerals were not evenly distributed but were largely concentrated in politically unstable regions. Policymakers, in turn, acknowledged that the destabilizing imbalance of natural resource supply and demand can have profound consequences for US security interests.

The vice president of the World Bank, Ismail Serageldin, captured the current wisdom on natural resource issues when he said, "Many of the wars of this century were about oil, but wars of the next century will be about water."¹ When President Jimmy Carter drew his line in the sand with the Carter Doctrine, he was simply formalizing what everyone knew: Middle Eastern oil was vital to the national security of the United States and its Western allies. Few would argue that petroleum was not a major underlying cause of the Gulf

War, and currently Iran is putting pressure on Saudi Arabia to reduce its oil production in order to drive up world oil prices and help Iran pay for its \$10 billion arms buildup. The growing nuclear program of Iran, Israel's nuclear weapons program, and the interests of other Middle East states in nuclear weapons continue to show the potential for oil to lead the world to further conflict. However, in terms of its relative scarcity and the ability of economics and technology to mitigate the imbalance of its supply and demand, water poses different and potentially more difficult problems for strategists. Efforts to manipulate the global supply of petroleum have been a leading phenomenon of the final decades of the 20th century. Control of the sources of fresh water could be equally significant in the opening decades of the next.

The insufficiency of fresh water has in the past led to violent conflict, and is currently the source of international tensions, but one should not simply assume that population growth will inevitably lead to war over water. Technology, pricing, conservation, trade, and industrial and agricultural policy changes *may* mitigate water scarcity and alter the prescription for conflict. Research on environmental security issues generally accepts the multiple causes of conflict, but fresh water is undeniably an important variable. Given assumed population growth, changes in climatic conditions, and the imbalance of water resource supply and demand, it will continue as a source of tensions; it could become the determinant variable in future international conflict. This article examines the strategically important environmental security issue of water resource scarcity, imbalances in fresh water supply and demand, methods of mitigating water scarcity, conditions that are likely to signal when water resources may lead to conflict, and policy options that might help us to change that equation.

Water Supply

Petroleum is but the currently most popular energy alternative in a relatively crude stage of mankind's energy technology development. It remains cheap, widely available, and easily transported. Even if conventional oil reserves were to be contaminated by a nuclear exchange, or denied through

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war or political ideology, non-conventional oil reserves locked in deposits such as the Alberta tar sands or global deposits of oil shale could be called upon, albeit at higher cost, to offset some of the disruption of conventional petroleum supplies. Moreover, the increase in oil prices resulting from loss of access to conventional oil would drive the industrial world to implement meaningful energy strategies, including research and development programs designed to develop the technology for the many alternative energy sources. The major per capita consumers of petroleum are the industrialized countries, which have the greatest potential to initiate the required technological and economic policies. Thus, pricing mechanisms, substitution, and technology make the implications of potential oil shortages less dramatic.

Water presents a considerably less-manageable problem. Most of the water on the earth, some 97 percent, is contained in the world's oceans and is therefore of little use for essential agriculture, drinking, or most industrial uses. Only three percent of the water on the earth is fresh and, of this, more than two percent is locked away in the polar ice caps, glaciers, or deep groundwater aquifers, and is therefore unavailable to satisfy the needs of man. Furthermore, only 0.36 percent of the world's water in rivers, lakes, and swamps is sufficiently accessible to be considered a renewable fresh water resource.² The supplies of useful fresh water are finite, and most of the forms in which it is used have no substitute. Our fresh water is made available through the hydrologic cycle in which solar radiation evaporates ocean water, which subsequently falls to land as rain and returns to the sea as runoff through rivers or aquifers. Precipitation, then, is the original source of all fresh water; it is highly variable in its geographical occurrence.

Precipitation in large sections of the world is inadequate to support substantial agriculture, populations, or industry. Migration, along with exponential population growth, have increased the number of people living in marginal, arid lands, where survival depends upon the availability of scarce water resources. At the same time, scientists have warned of coming changes to the earth's climate and increasing periods of unstable weather patterns and rainfall. It is not yet clear whether such variations result from industrialized society and the activities of man that may give rise to global warming, or are simply part of a long-term global climate cycle which man has yet to define. The El Nino phenomenon points out the vulnerability of civilization to such variations in the hydrologic cycle.³

The uneven global distribution of fresh water is striking. Most global rainfall occurs in the equatorial zone that stretches from South and Southeast Asia across Africa into Central America and the Amazon Basin. In general, rainfall decreases north and south of this zone. By itself, the Amazon River accounts for 20 percent of average global runoff, compared to all of Europe with only seven percent. The Zaire river basin accounts for 30 percent of Africa's total runoff.⁴ Areas chronically short of fresh water include parts of

the western United States and northern Mexico; much of Africa, the Middle East, and central Asia; and small portions of South and Central America. Water-scarce countries should receive close examination, because of the rainfall variability within the borders of a given country.

- Take the case of the United States; in its eastern portion, water *quality* is the major concern, while the western portion focuses chiefly on water *quantity*. Overall, the United States appears to have sufficient water, but large portions of the plains and western mountain and inter-basin regions are arid and have overexploited aquifers. Rising populations in the water-scarce west are exceeding sustainable water yields and creating tensions with Mexico over the quality and quantity of water from the Colorado and Rio Grande rivers.

- Southeastern China benefits from seasonal monsoons and has sufficient water supplies, while the North China plain, a fertile area that accounts for 25 percent of the country's grain harvest, has water scarcity problems. Over-pumping aquifers to support wheat and millet cultivation has caused approximately one third of Beijing's wells to go dry, with the water table dropping between one and two meters annually. This condition is indicative of the water scarcity problems of this agriculturally and industrially important region of the country. China's situation is particularly important since that country, with approximately one-quarter of the world's population, can claim only eight percent of its fresh water resources.⁵

- Unlike the case of other natural resources, it is sometimes difficult to declare that certain countries do or don't meet standards for water sufficiency. Nevertheless, World Bank statistics identify approximately 20 countries that have been declared chronically water scarce. The list includes Saudi Arabia, Israel, Jordan, Kuwait, Egypt, Kenya, Somalia, and Singapore.⁶ Other strategically significant countries with pronounced rainfall variability include Pakistan, Mexico, and India.

It is important to note that water scarcity from a lack of precipitation can be mitigated through desalinization and external annual river flows. Desalinization plants require substantial investments of energy, technology, and capital; as a result, most of the world's desalinization plants are located in the energy-rich Middle East. Desalinization is not a practical solution for most water-scarce regions. More important, from both historical and practical perspectives, are the countries that share access to major rivers. Syria, Egypt (the heart of the Roman Empire's granary), and Iraq, where the Tigris-Euphrates Valley gave birth to modern civilization, had dominating cultures throughout much of their history because of waters originating in upstream countries. Decisions by upstream countries to develop the heretofore common water resources, however, can have major implications for the economic viability and continued cultural existence of those downstream. Tensions currently exist within all these countries, and between them and their neighbors, as a result of upstream user decisions.

Water Demand

Demand for fresh water is examined from the perspectives of population growth, urban growth, and global water use. The latter falls into three categories: irrigation, which accounts for some 73 percent of fresh water consumed; industrial uses, with 21 percent of consumption, and public uses at six percent.⁷ Water use patterns differ between industrialized and developing countries. In the former, industrial uses account for approximately 40 percent, while in the latter industries use no more than ten percent of annual fresh water consumption.⁸ Conversely, in the developing world, agriculture accounts for 90 percent of water use.

Populations. So long as the supply of fresh water is provided by the hydrologic cycle, the demand for water is primarily dictated by the world's rising population. The earth's population approximates a J-curve and is growing faster than at any time in its history, with nearly 90 million people born each year. The current world population figure of 5.8 billion is too abstract for many people to grasp, but it can be put in context by these facts: at the beginning of the century there were only 1.6 billion people, and in 1950, the world population was only 2.5 billion.⁹ It required from the beginning of time until approximately 100 years ago for the world's population to reach 1.6 billion; today, less than a century later, the earth is home to an additional four billion. This exponential rate of increase is not predicted to taper off for some time. Developing world countries account for 95 percent of this population increase. It is difficult to see how the hydrologic cycle will keep pace with the demands of this exploding population.

Increased development, industrialization, and growing affluence expand the per capita demand for water, in part because increased wealth generates demand for animal protein, such as beef and chicken, which require greater quantities of grain to produce similar amounts of calories for human consumption. An increasing population requires increased irrigation and dams, and generates ever-increasing quantities of untreated pollutants, both of which can affect adversely the quality of water in a state or region. Thus, water passed to downstream users, even in water-rich regions, is often contaminated by toxic and hazardous wastes, pesticides, and fertilizer; its use may also be limited by increased salinity due to multiple iterations of irrigation. Some recent statistics indicate that global demand for water for irrigation, household, and industrial use will increase faster than the rate of population growth.¹⁰

Population growth greatly increases the demands placed on governments struggling to maintain legitimacy in the eyes of their people. This is particularly important to those countries that are newly democratic or seeking to move toward democracy. The figure that best communicates population pressure is *doubling time*, the time in which the population of a country is expected to increase 100 percent. The United States is expected to double its population in 114 years, an estimate that allows for annual immigration of nearly one million people. The doubling time for the following strategically important countries is

particularly noteworthy: Egypt, 31 years; India, 37 years; China, 66 years; Iraq, 19 years; Iran, 24 years; North Korea, 38 years; and Mexico, 32 years.¹¹

Urban growth. By the year 2000, fully 50 percent of the world's population is expected to be living in urban areas, where demand for fresh water even now cannot be met consistently. The new century will be characterized by increased urbanization, caused primarily by rural dwellers flocking to the cities to take advantage of presumed job opportunities. Because economic growth is the pulse taken almost daily to determine the health of a country and the ability of an administration to govern, governments tend to favor industrialization over water quality, despite the fact that water-borne health threats can often create long-term health problems. And the very countries in which most population growth will occur will be unable to fund both economic growth and adequate social infrastructure for the uncontrolled influx of people to the cities.

Water quality will become the most pressing problem in the world's major urban centers. In the Caribbean and Latin American regions of the Western Hemisphere, 70 percent of the population is urban, and 33 percent of that urban population is concentrated in 15 large cities of two million or more inhabitants. While immediate security threats are well known, such as Brazil's use of its army to control the barrios that encroach on the outskirts of Rio De Janeiro, health threats attributable to inadequate treatment of water may in time overshadow such coercive measures. Less than half the urban population in this region has access to sewer systems; approximately 40 percent of urban residents don't have proper sanitation facilities. Some 90 percent of the waste water generated in the large urban zones is discharged without any treatment at all. The emergence of cholera in Latin America, after a 100-year absence, should be considered less an aberration than an indicator of the potentially lethal combination of population growth and inadequate supplies of fresh water. Even in a relatively sophisticated technological environment like Moscow, health officials warn travelers to beware of hepatitis A, bacterial dysentery, and other gastrointestinal diseases from organic contamination in drinking water. Few experts are sanguine about the possibility of providing safe fresh water supplies to the growing wave of urbanites in many parts of the world.

In spite of concerted efforts by the UN and the World Health Organization, in 1990 some 1.2 billion people lacked a safe supply of water and 1.7 billion had inadequate sanitation. Given anticipated growth rates in urban areas and pressures on poorly performing governments, the situation is not likely to improve.¹² The availability of fresh water in certain parts of the globe is already a problem, one for which there appears to be no immediate solution.

Agriculture. The amount of fresh water consumed in agriculture has gone up in the wake of the Green Revolution, which introduced high-yield strains of grain requiring massive increases of irrigation, fertilizer, and pesticides. Seventy percent of the increased grain production in populous Asia has been made possible by irrigation.¹³ Global irrigation acreage has increased in parallel with

acceptance of the new grains. In 1950, worldwide irrigated land totaled 94 million hectares, whereas in the second half of the century, land under irrigation has risen to 235 million hectares. Currently, 16 percent of the world's agricultural land is irrigated, and that 16 percent produces 33 percent of the global food supply.¹⁴

The rate of increase in irrigated land appears to be declining; there are many possible explanations for the downturn:

- Most of the easily developed land was chosen first; remaining irrigation projects seek to improve yields from land that is of marginal quality and expensive to develop.

- Donors and lending institutions are increasingly circumspect about loans for costly irrigation infrastructure, such as dams and canals, where the environmental costs are high and the economic return on investment is in question. In addition, many of the developing countries have substantial debt burdens that they currently cannot meet.

- Irrigation is an inefficient way to use fresh water. It is estimated that only 37 percent of water applied through irrigation is absorbed by the crops; the rest is lost through evaporation, seepage, or runoff. Runoff, in turn, typically is polluted with agricultural chemicals and salts; it is consequently of less economic value to others and may even pose health threats.

- Water to be used in irrigation schemes frequently is pumped from deep, non-renewable fossil aquifers, and many of the most important irrigation aquifers are drying up. In the United States, the well-known Ogallala fossil aquifer that runs under much of the fertile southern Great Plains is 50-percent depleted, and large areas of once-irrigated land in north Texas have been abandoned. Similar situations exist in northern China and in India. In Israel, the Arabian Gulf, and several US coastal states, excessive pumping of ground water aquifers along the coast has led to the intrusion of sea water which is contaminating drinking water supplies.¹⁵

- Irrigation schemes are difficult to maintain. Dams fill up with silt, as do canals and channels, and the fertility of the soil is eroded by the buildup of salts. Several strategically important countries are struggling with their irrigation programs. China has been forced to remove 930,000 hectares of irrigated land from agricultural production in the last 15 years and is losing over 100,000 additional hectares each year. From 1971 to 1985, the former Soviet Union abandoned an astounding 2.9 million hectares of irrigated crop land. The high cost of maintaining existing irrigation systems will eventually absorb some of the funds required to start new irrigation schemes.¹⁶ A preliminary conclusion is that the increasing world population and the growing affluence of some nations will greatly influence the requirement for grain, and correspondingly power will shift to those countries with sufficient water to feed themselves and produce a grain surplus.

Industry. Industrial activity cannot be developed, nor can it long survive where already established, without access to substantial quantities of

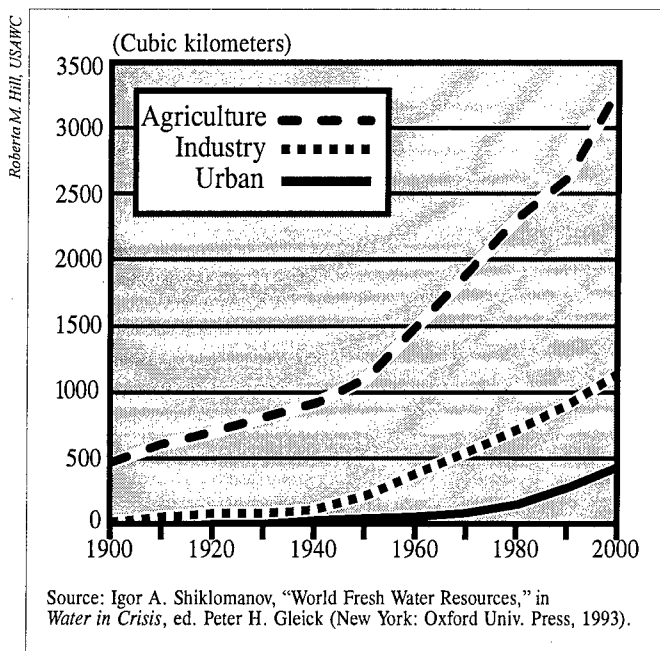


Figure 1.
Global Water Use,
1900-2000.

fresh water. Industrial uses for water include boiling, cleaning, air conditioning, cooling, processing, transportation, and energy production. The industries requiring the most water for their processes are petroleum refining, food processing, metals, chemical processing, and pulp and paper. In the more sophisticated industrialized countries, such as the United States, Japan, and Germany, industrial leaders motivated by new environmental and anti-pollution laws have developed technologies that recycle water before discharge. In the United States, industrial water may be used more than twice before it is returned. Purifying water after its industrial use requires costly, sophisticated technology that is not widely available in the less-developed countries to which, paradoxically, industrial production is increasingly being shifted.¹⁷

Water is particularly important in the energy industry. Fossil fuel and nuclear power plants and hydroelectric systems all require substantial quantities of water. Particularly heavy uses of water in the production of energy are the oil shale and tar sands (synthetic fuels) industries, which must reclaim land, generate power, process the mineral, and dispose of waste. At the Athabasca concession in Canada, where tar sands are mined and boiled to recover petroleum, it requires eight tons of water to produce one ton of final product.¹⁸ Because the tar sands and oil shale tend to be found in arid regions, petroleum production in those regions could be constrained by the availability of water for industrial uses. A major problem of the industrial use of water is the fact that it creates toxic and hazardous pollutants that renders waste water unfit for subsequent human consumption or use in the agricultural sector; these conditions can also permanently pollute aquifers.

The expansion of industry to the developing world, in addition to local human contamination of fresh water supplies, is making it more difficult to maintain water quality in many parts of the world. Other factors, such as heightened economic interdependence and the rationalization of industrial production, have caused substantial migration of heavy industry to the developing world. Ready availability of raw materials, lower labor costs, and higher production costs in the developing countries—often caused by environmental regulations more stringent than found in many developing countries—have driven industries to more hospitable and less constrained locales. Health officials who previously had focused on relatively benign water pollutants such as coliform bacteria must now contend with nitrates, heavy metals, chemicals, and synthetic pollutants such as polychlorinated biphenyls (PCBs).

Many governments facing these new problems lack the technical skills, experience, manpower, and economic resources to correct them. Moreover, the subtle pressure to ignore water-related health threats from industries that promise even a partial solution to the government's economic problems is often not subtle at all. Governments caught in the bind between the promises of industrialization and the warnings of their own public health officials will have incentives to seek access to safe water even at the expense of their neighbors. Downstream countries increasingly will be concerned about pollutants discharged into waterways from upstream states. Trends in water quality and consumption are creating conditions in which conflict over access to fresh water is increasingly possible.

Water and Conflict

Water is an essential resource for which there are no substitutes. The fact that water does not lend itself to international trade complicates the water resource scarcity problem. Unlike metals, grain, timber, coal, or petroleum, water cannot be transported economically in large quantities, certainly not in the quantities necessary to satisfy the demands of even a small country. While there are schemes to divert major rivers, create long canals, tow icebergs, or desalinize water, such schemes have substantial economic and political costs. They appear to be sustainable solutions to water scarcity problems only in rare situations.¹⁹ The supply of fresh water is limited by the hydrologic cycle and general climatic conditions, and demand for water as an agricultural, industrial, or urban resource is increasing exponentially with the rising global population.

If conflict over this scarce resource is to be averted, steps must be taken to allow for fair and equitable resolutions of conflicts over it. Water law in the United States is well developed and backed by numerous precedents. In the eastern part of the United States, the legal allocation of water was historically based on riparian rights, wherein all people living along the river had a claim to river water, but were not allowed to divert the flow of water in any meaningful or permanent fashion. This solution worked reasonably well in an area where there was substantial water, before large-scale industrialization or

irrigation schemes were developed. As the United States expanded westward, appropriations doctrine replaced riparian rights as the dominant principle of water law. Under appropriations doctrine, priority was given to the first user of the water. This doctrine is better suited to areas where water supply is limited, and it played a major role in the allocation of Colorado River waters.

Other doctrines are applicable to international (cross-border) water flows. The Harmon Doctrine, implemented in 1909 as a result of a water dispute between the United States and Canada, said the upstream state (the United States) had an indisputable right to water. This finding caused bad feeling between the United States and Canada and did nothing to promote cooperation or more creative solutions to the problem. Subsequently, the principle of equitable apportionment was instituted and became the main principle of a US-Canadian treaty. Equitable apportionment called for a sharing of power and water benefits equally, regardless of the upstream state (or country); this principle overruled the Harmon Doctrine.²⁰ Though not without margin for interpretation, US water doctrine has substantial case precedents and offers a legally binding and enforceable remedy to conflict over scarce water resources.

Unfortunately, in the international milieu water law is not nearly as robust or useful in settling conflict. The method of determining sovereignty over international or transboundary rivers remains contentious throughout the international community. Most water law developed since 1800 has focused on freedom of navigation rather than water sovereignty. Difficulty in developing consensus on water law often turns on simple definitional issues. In addition, two competing doctrines of international water law have developed. The first is that of absolute state sovereignty, derived from the Harmon Doctrine, in which the upstream state has absolute sovereignty over its territory and the waters therein. The alternative doctrine is absolute integrity, which looks upon a river basin in a way that favors the downstream states by suggesting that the waters be apportioned in an equitable and reasonable fashion. Quite predictably then, when looking at the Tigris-Euphrates waters conflict, Turkey takes the position that it has absolute state sovereignty over the river waters because it is the upstream state, while Iraq and Syria champion the doctrine of absolute integrity, insisting on a reasonable and equitable apportionment of water from those rivers. Conspicuously absent, and a guarantee that international water law will remain ineffectual, is an enforcement mechanism. While an arbitrator or an international court may make a decision on a particular water dispute, that decision does not establish an enforceable precedent; enforcement depends on the good will of the parties involved. Most international water disputes are approached through bilateral or multilateral negotiations rather than legal precedents.²¹

History is replete with examples of violent conflict over water, from competition for desert oases and water holes to the battles between the Mesopotamian cities of Lagash and Umma in 4500 B.C., to the fighting between Syria and Israel over Syria's attempts to appropriate the headwaters of the

Jordan River in the 1960s.²² Water conflict is most likely when rivers are shared by multiple users and downstream users are vulnerable to decisions made by upstream states. Twenty percent of the world's population is supported by the 200 largest river systems; 150 of the systems are shared by two nations, with the remaining 50 shared by three to ten nations. Particularly important river systems and the number of countries that share their river basin are: the Nile, nine; Zaire (Congo), nine; Tigris-Euphrates, four; Mekong, six; Amazon, seven; and the Zambeze, eight.²³ From a strategic perspective, upstream states have an advantage in the control of water; downstream states generally remain vulnerable to the political decisions of those upstream.

Conflict Potential in the Middle East. Water conflict in this region has a long history, and there is great potential for renewed conflict. Since political borders in the Middle East are artificial and divide various ethnic and religious groups, all Middle East rivers and most major aquifers are international and shared by multiple states. Industrial and agricultural growth is already constrained by the lack of water. The population growth rate is among the highest in the world; by the turn of the century the population will reach 423 million, and it is expected to double in the 25 years thereafter.²⁴ Water disputes in the region are complicated by ongoing conflict, war, large areas of desert, climate, and political instability.

There are four distinct Middle East water sources over which potential conflict looms: the Tigris-Euphrates River basin, the Jordan River basin, the West Bank ground water aquifer, and the Nile River. In each instance water represents an essential resource for the security for all involved states, and in all instances the potential for water conflict has led to communication and an effort to seek agreement, as the following summaries of past and potential conflicts suggest.

- Turkey, which controls less than 20 percent of the Tigris-Euphrates basin land mass, controls the headwaters of the basin and therefore can dictate terms to downstream users Iraq and Syria, which between them control some 66 percent of the basin. Turkey has begun a large water management scheme known as the South-East Anatolia Project (GAP). Citing its rights as upstream riparian, Turkey has begun building 22 dams and 25 irrigation systems to take advantage of its water resources. Iraq and Syria fear that as Turkey begins filling the dams, downstream flow will be substantially reduced, impairing their agricultural sectors. Extensive irrigation schemes in Turkey have already on occasion substantially reduced water quality downstream; the concern is that chemicals and salts carried away from the irrigated land will continue to degrade the quality of water reaching Syria and Iraq. Thus, both states are strategically vulnerable to political decisions made in Ankara but lack the military, political, or economic leverage to modify the behavior of Turkey, the region's strongest military state. Moreover, the dams would not be an easy military target; even if they could be breached, the resulting floods would destroy towns and irrigation schemes downstream. Because of their own bad relations, Syria and Iraq have been unable

to mount a successful bilateral effort either to negotiate a settlement or to find a solution to Turkey's control. As one consequence, both have supported minority Kurdish rebels operating against the Turks. In response, Turkey is alleged to have threatened to turn off water flowing to its downstream neighbors.²⁵

- The ongoing conflict over the Jordan River basin is complex; it is perhaps the most difficult current water dispute to resolve. The Jordan River's discharge is less than two percent of that of the Nile, but it is exceptionally important to the countries involved: Israel, Jordan, Syria, Lebanon, and the new Palestinian state. The Jordan River is fed by four upstream rivers: the Dan, the Hasbani, the Banias, and the Yarmouk. As a result of capturing territory in the 1967 war and carving out a security zone in southern Lebanon, Israel is now the de facto upstream state for most of the Jordan river basin. This gives Israel substantial control over, and access to the major share of, the Jordan River water. Of particular interest, the headwaters of the Banias are located on the Golan Heights, and the Golan Heights contribute waters to the Hasbani and to Lake Tiberius, a large holding lake on the Jordan River.²⁶ Jordan has been left extremely vulnerable, as the majority of its water comes from the Jordan River. The dispute over water is being negotiated as part of the Madrid peace process; success so far has been defined as bringing all parties to the negotiating table and promoting communication and cooperation where otherwise there would have been no meaningful diplomatic contact. Recently an Israel-Jordan Peace Agreement was signed that recognized Jordan's right to "the minimal water needs of domestic uses for its survival."²⁷

- A second water resource issue that involves Israel concerns the West Bank and access to the Mountain Yaqon-Taninim aquifer. Israel has occupied the West Bank since the 1967 Arab-Israeli War and has heavily exploited the water from this aquifer. The West Bank is a highland area that catches rainfall off the Mediterranean; its subterranean aquifer tilts toward the coast and crosses the Green Line, the former Israeli boarder. Israel is now heavily dependent upon this aquifer, counting on it for between 25 and 40 percent of its sustainable water supply.²⁸ Until restrictions were put in place in 1990, Israel had consistently overdrawn water quotas from this aquifer and still heavily restricts Palestinian use. Approximately 80 percent of this water is taken by either Israel or its West Bank settlers, with only 20 percent allocated to the Palestinians.²⁹ Although Israel could continue to withdraw water from the aquifer west of the Green Line, Palestinian control of the West Bank would inevitably mean Israel's loss of control of quantities pumped; it would also increase the possibility that toxic wastes and other pollutants from inadequate waste disposal would alter the aquifer's water quality. The dependence of Israel on this aquifer is an important dimension of ongoing peace negotiations in the Middle East.

- While Israel often receives praise for developing commercial drip irrigation technology, its management of overall water resources is not without blemish. The Crystal Plain aquifer, which is exclusively in Israeli territory and

runs along the coast, has been badly overdrawn. Salt water encroachment from the Mediterranean has occurred, and salts or nitrates from agricultural pollution have contaminated at least 20 percent of this valuable aquifer.³⁰

- The Nile River is the heart of Egypt; from an airplane, one can see the green strip of agriculture and civilization that the Nile brings to what is otherwise an inhospitable desert. In 1898, Britain threatened military action when the French sent an expedition to gain control of territory that constituted the headwaters of the White Nile. The importance of upstream sources of the Nile has not been lost on subsequent Egyptian governments; Egypt has made quite clear its willingness to go to war to preserve its portion of the Nile River.³¹ Egypt depends on the Nile for 97 percent of its water supplies, yet it contributes virtually no water to the Nile. Egypt is the last downstream state on the world's longest river, which has an additional eight upstream countries with the potential to withdraw water supplies before the Nile reaches Egypt.

Precipitation in the Ethiopian highlands is the source of water for the Blue Nile, which carries 85 percent of the Nile into Sudan. At Khartoum, the White Nile provides the additional 15 percent, and the remainder flows downstream into Egypt. Fortunately for Egypt, the upstream users have been unable to mount serious development schemes that would draw upon the Nile. Disagreement between Sudan and Egypt in the late 1950s brought the nations to the edge of violent conflict, but ultimately led to a 1959 agreement allocating 55.5 billion cubic meters (bcm) of the Nile to Egypt and an additional 18.5 bcm to Sudan. By recapturing municipal waste water and agricultural runoff, and by tapping minor aquifers, Egypt was able to increase its water supply to 63.5 bcm by 1990. Egypt's demand, however, is projected to reach nearly 70 bcm by the year 2000, and its population is expected to double by the year 2027.³²

As Ethiopia recovers from the Mengistu regime and seeks to promote development, it will inevitably look toward the waters of the Blue Nile. Dams could provide irrigation to lands that are fertile but dry, and hydroelectric power to sustain new industries. Egypt's aggressive stance has been able to keep such schemes in the planning stage, and keep donors such as the World Bank from funding Ethiopian development projects. However, the region's heavy population growth, droughts in northern Africa, bad relations between Egypt and Sudan's radical Muslim government, and political pressures on newly democratic Ethiopia to satisfy the demands of its constituents portend increased conflict over this important river.

Other Regional Water Issues. While the Middle East has been the focus of most attention, several locations in Asia also have water resource problems. The Indus River basin, which begins in Tibet and has the downstream riparian states of India and Pakistan, has long been a source of conflict between those two states. The British partition of India and Pakistan in 1947 complicated the management of water from the Indus, disrupting an irrigation system that had endured for nearly 5000 years. Shortly after the partition,

conflict arose as East Punjab (India) withheld water flows to canals in West Punjab (Pakistan). These destabilizing tensions continued until 1960 when, under the leadership of the World Bank, the Indus Waters Treaty was signed on the principle of equitable apportionment of Indus water resources.³³

India has struggled elsewhere with artificial colonial borders and riparian environments. In the east, conflict exists between India and Bangladesh concerning the Ganges River, which flows from the Himalayas through India and Bangladesh, where it joins the Brahmaputra to finally empty through multiple delta exits into the Bay of Bengal.³⁴ In 1975, India began diverting water from the Ganges upstream from Bangladesh; the latter, deprived of Ganges water, took the dispute to the United Nations. As a result of the United Nations' examining the issue, a settlement was reached in 1977 called *The Agreement on Sharing of the Ganges Waters*. While designed to last only five years, the agreement continues to govern water flows on the Ganges; from the Bangladesh point of view, the agreement provides the important aspect of natural river flows during the dry season. The recent agreement between Nepal and India concerning upstream tributaries to the Ganges, however, includes irrigation schemes, flood control, and hydroelectric dams. Undoubtedly this agreement will affect the quality and quantity of the water reaching Bangladesh; without a revision of the 1977 agreement, there is potential for renewed conflict between India and Bangladesh over the Ganges.³⁵

Although Asia and Africa, because of their high population growth rates and strategic importance, have been the focus of world attention on water conflict, other river basins have been the subject of dispute. The damming of the Parana River brought Argentina and Brazil to the conference table to resolve a difficult dispute in the 1970s. Damming and salinization were also the cause of disagreement between Chile and Bolivia over the Lauca. The United States and Mexico have been at odds over salinization and water flow quantity in the Rio Grande, while industrial pollution has caused substantial disagreement among European riparian states on the Elbe, Szamos, and Werra/Weser.³⁶

From a strategic perspective, competition over scarce water resources is taking on increased importance due to the proliferation of weapons of mass destruction. The leakage of fissile materials from Russia is thought to continue, and the availability of technology to produce chemical and biological weapons is more problematic today than at any other time. Population pressures will continue to complicate the search for solutions to regional, ethnic, religious, and resource problems; any competition over regional water resources can escalate quickly from noteworthy to significant. Because the availability of water determines the production of food, and the latest grain technologies emphasize irrigation as well as pesticides and fertilizers—all of which create water pollution problems—one can expect conflict over scarce water resources in the future. Such conflicts will have international security implications beyond their regional origins.

Policy Options

The linkage between water scarcity and conflict is clear; given this fact, what can be done that might modify the conditions that could lead to conflict? The answer to this question traditionally was increasing sources of supply, primarily through irrigation. However, the best thinking on the subject now argues that water demand management is the key to improving the balance of supply and demand and mitigating conflict in the future. It is in the best interest of the United States, other donor nations, multinational groups, and non-governmental organizations (NGOs) to promote technologies and policies with the potential to reduce, at least at the margin, aspects of demand in situations of water resource scarcity. The best approach to reducing demand may be an integrated demand management system instituted by a government or regional commission. Such a policy looks at demand across all uses (agricultural, industrial, and urban) and uses incentives such as pricing, investment credits, and penalties to promote efficient water use. For example, after instituting an intense, countrywide demand management policy in the 1970s, Israel saw the per-unit product value of land and water increase significantly, with industrial production per unit of water increasing 80 percent.³⁷

Many things can be done to increase the efficiency of water use. Most fresh water is used in agriculture, and irrigation increasingly has been the method by which agricultural production has been expanded. Yet as a result of over-irrigation and evaporation during transport, irrigation efficiencies worldwide are only 37 percent. Experts suggest that more efficient canal system management could save ten to 15 percent of irrigation water losses.³⁸ Advanced irrigation technologies substantially improve efficiencies. For example, in Israel row crops such as cotton, when irrigated with a drip irrigation system, had a 50-percent increase in product value over traditional sprinkler irrigation.³⁹ Drip irrigation in combination with other policies has reduced Israel's water use per irrigated acre by one-third, even as crop yields have increased. Although deep-seated political enmities in the Middle East have been a barrier to disseminating this technology in the region, Israel has worked closely with the Muslim central Asian republics in sharing it. As a result, joint irrigation projects involving Israel, Kazakhstan, and Uzbekistan have experienced "several-fold" increases in crop yield "while cutting water consumption by up to two-thirds."⁴⁰

Water use policy decisions are also central to the availability of water. In Morocco, for example, diverting five percent of the water from irrigation would double municipal water supplies. Diverting five percent of Jordan's irrigation water would increase municipal and industrial water supplies by 15 percent.⁴¹ However, reducing irrigation water could reduce the size of the agricultural sector and promote renewed migration of the rural population to urban centers, where jobs may not be available. One way to foster this change is to apply market forces and allow water to be priced at its true market value.

Subsidized water costs promote inefficiency and contribute to the 37-percent worldwide irrigation efficiency figure. In the United States, western water supplies are heavily subsidized. When the Government Accounting Office performed its 1981 study of a half-billion-dollar irrigation scheme in Colorado, it found that the water used to grow cattle feed had a delivered cost of \$54 per acre foot, while the government-subsidized price to farmers was seven *cents* per acre foot.⁴² According to US Bureau of Reclamation figures, at one to three dollars per acre foot of water, the efficiency of irrigation is less than 40 percent; however, increase that price to \$10 per acre foot and farmers increase irrigation efficiency to levels in excess of 60 percent.⁴³ Rising prices encourage efficiency, which allows water to be diverted to the industrial or municipal sectors, thereby diversifying and strengthening the economy and making it possible for a country to purchase “virtual water” in the form of food products on the world market.⁴⁴

In addition to demand management, several other steps could be taken to reduce the potential for conflict. One is to encourage the development of an international body of laws concerning water resources that would be capable of gaining universal acceptance and practice. Another is subsidizing research for the purposes of developing new strains of crops and increasing climatic knowledge. Donor countries can also increase funding for agricultural education to improve agricultural efficiencies in the 84 percent of the world’s non-irrigated cropland.⁴⁵

Strategic Implications

With current population trends, the worldwide per capita supply of water will be reduced by approximately 33 percent by the year 2025.⁴⁶ If this situation comes to pass, one can expect additional competition for scarce resources, territorial encroachment, regional instability, and conflict. In such an environment, certain concepts should be of importance to strategists.

- Geopolitical thinking will increase in importance in the post-Cold War environment, where regional issues have become—and seem destined to remain—the chief concern of US security interests.

- Saul Cohen described geopolitics as “the relation of international political power to the geographical setting,”⁴⁷ while Peter Jay refined the term to “the art and process of managing global rivalry.”⁴⁸ Geopolitics is the marriage of geography and grand strategy. In today’s regional security milieu, geographical variables can be ignored only at the strategist’s peril. Although “the geographical setting does not determine the course of history, it is fundamental to all that happens within its borders.”⁴⁹

- Homer Lea, the American who became a general in the Chinese army, wrote in 1909 that “only as long as man or nation continues to grow and expand, do they nourish the vitality that wards off disease and decay.”⁵⁰ The Darwinesque pattern of expanding nation-state borders and territorial conquest characterized by early geopoliticians is, in general, no longer considered acceptable.⁵¹ This lack of physical expansion does not, however, mean that the vitality

or competitive drive of the major states has withered. Indeed, it may be argued that Lea remains essentially correct, and that competition between the major powers is more intense now than ever. It may be that the form of competition has changed: from a quest for territorial expansion and defensible borders to a struggle for economic power, increasing gross national products, and access to the resources on which they depend. In that form, it may be the need for access to natural resources that should help underpin geopolitical strategy. Antagonists may seek to contain one another economically, leading one to expand its economy while precluding a rival from doing the same. If it is possible to deny access to essential resources to an adversary, then doing so has the same effect as physical containment: meaningful growth of power can be denied.

- Many adjustment mechanisms exist to mitigate resource scarcity, even for water. Technology, market pricing, legal doctrine development, conservation, and overall demand management policies (if aggressively applied), can contribute at the margin to reducing the imbalance between the supply and demand of fresh water. Unfortunately, barring a catastrophic reduction in world population, the exponential growth of population will overwhelm these marginal improvements and exacerbate water scarcity tensions in the next century. Because "no country can be economically or socially stable without an assured water supply,"⁵² strategists assessing regional threats to US security interests would be wise to determine whether the countries of the region have access to adequate fresh water resources, as well as the policies to ensure that access, and know how their efforts to secure access might affect regional stability.

- Beware of generalizations and linear thinking; it is difficult to prove that water causes conflict. The 1967 Arab-Israel War is a case in point. Conflict generally has multiple causes, and it may be that water will serve as the catalyst to ignite an existing flammable mixture of ethnic, religious, or historical enmities. From the diplomatic perspective, environmental security issues, such as tensions over scarce water resources, may serve as a useful vehicle to promote communication and goodwill among potential regional combatants.⁵³ Thus, while it may lead to conflict, water resource scarcity may also advance the foreign policy objectives of the United States or any other nation.

- Should food prices rise in the near future, a premium will be placed on access to sufficient water to support agriculture. Several trends account for this. India will soon have the world's largest population. India and China are struggling to feed their growing populations, and, in spite of such water resource schemes as China's Three Gorges Dam, many experts expect China and other Asian countries to enter the world cereal market as importers. In addition, negotiations in the General Agreement on Tariffs and Trade resulted in reduced agricultural subsidies in the United States and Europe, and the Uruguay round of trade talks resulted in reduced import tariffs for agricultural products. Increased demand in Asia and a liberalization of agricultural trade portend an era of increased food prices. This will result in a shift of power to

food-producing countries, and it will complicate the efforts of water-scarce developing countries to decrease their dependence on irrigation.⁵⁴

Conclusions

Water resource scarcity is an environmental security issue that currently exercises considerable influence on regional stability, particularly in arid regions. Trends in population growth, water demand, and climatic weather irregularities could make water resource scarcity more influential in geopolitical matters than heretofore has been the case.

Fresh water—who has it, who needs it—could approach access to oil in its effects on national and international security policies. The implications of this heightened importance will be noteworthy for US domestic agricultural policy, the behavior of powerful Asian states, and US efforts to encourage peace in the Middle East.

Water scarcity issues such as salinization and health are often long-term and therefore less visible to the emergency management approach to foreign policy favored by so many states. Nevertheless, water issues will continue to be a strategically important variable in foreign policy development, and they should be used as an indicator of potential regional instability and a constant reminder of the importance of geographical variables to international relations and political military affairs.

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The Strategic Importance of the World Food Supply

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The place is Rome, Italy, between 13 and 17 November 1996. Thousands of policymakers, bureaucrats, and environmentalists from 196 countries have descended on this historic city for a World Food Summit; they are polarized between the pessimists (latter-day Malthusians) and the optimists, whether technologists or those dedicated to modifying the behavior of food producers and consumers. Each group believes itself to represent realism.

Many of the attendees are alarmed about clear signs that the world is running out of food, characterized by images of people starving in Somalia in 1992. They're quick to tell you that the famine in Somalia is merely representative of the ongoing food crises in Africa and parts of South Asia. They remind you that as recently as 1983 and 1984 a million Ethiopians died in another terrible famine.

Attendees from the other camp see things differently.¹ Their world generally faces a food glut; they pay their farmers handsomely not to grow food, in order to avoid surplus. Their farmers also have been frustrated as prices of agricultural commodities have declined in the past 15 years; they make the case that other lines of work are far more promising than agriculture. Throughout the conference the two groups would remain worlds apart.

So, too, are the regions described in this article and the kinds of problems that affect them. Food problems in Africa, primarily sub-Saharan Africa, are most often characterized by insufficiencies due to war, civil strife, flawed government policies, and poverty. The latter is defined as the inability to purchase the minimum amount of foodstuffs to sustain life, even in periods of relative plenty. Hence world response to these conditions has taken the form of relief efforts to solve immediate problems, sometimes with little official regard for long-term effects of the interventions on domestic agricultural markets.

Food problems in China, as best we can discern, are different from those in Africa in both form and scope. Whereas sub-Saharan food crises have been with us in increasing numbers for several years, with no imminent prospects for slowing the trend, China's challenges lie mostly in the future. Its enormous and growing population has the potential to destabilize agricultural production throughout the world. Its growing affluence has begun to increase demand for meat products, sustainable only by increasing its production and imports of grains. And whereas the plight of individual African states will have limited effect on the well-being of other regions, China's size and location make it inevitable that its claim to the wherewithal to feed its people in 2020 could indeed affect contiguous states as well as distant regions capable of producing grain surpluses.

Clausewitz reminds us that "the first, the supreme, the most far-reaching act of judgment that a statesman and commander have to make is to establish . . . the kind of war on which they are embarking; neither mistaking it for, nor trying to turn it into, something that is alien to its nature." That admonition applies equally to the strategist seeking to understand what motivates or deters other states in a time of relative peace. For a while during the oil crisis of the 1970s, food was sometimes called the green weapon, apparently on the assumption that the embargo of one commodity could be countered by the embargo of another. At the time, no one took the concept very seriously. Now, however, with the world's population half again what it was at that time, food—who has it, who doesn't—and the arable land from which it is produced become legitimate strategic considerations.

This article explores aspects of world agriculture and suggests ways to examine and think about arable land and the world food supply, considerations that strategists are sometimes too quick to dismiss. Some support one or another of the two opposing views, because of folk wisdom or prejudice. Some believe that the "world is full of food"; others believe that little can be done to avert starvation in Africa. Still others argue that the world food supply is not vital to US national interests. Common to all views often is a lack of opportunities to examine the matter in depth.

To encourage the study of food and arable land as strategic assets, this article addresses the supply of food worldwide, and to a lesser degree, the demand for it.² It looks at factors that determine the supply of food and at circumstances that can alter—for better or worse—the ability of producers to

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keep pace with demand. Most important, it examines the implications of success or failure to maintain a supply of basic foodstuffs that stays just ahead of the demand. Strategists need a clear, even if rudimentary, understanding of the forces that determine whether tens of millions of people will live lives of feast or famine. Such an understanding will help them shape national policy on matters with potentially unprecedented peacetime consequences.

The Demand for Food

A number of considerations shape the worldwide demand for food. Key among them are population growth, social upheavals that disrupt domestic food production and contribute to humanitarian disasters, and the amount of grain consumed indirectly by relatively affluent societies as they satisfy their newfound desire for meat.

Demographics. The world's population has now reached almost six billion. At current growth rates it could double by the year 2035 unless states take decisive actions to address the problem.³ Relentless population growth—whatever else happens to the demand for food—means that we will have many more mouths to feed each year than the year before. One policy option is to reduce the rate of growth of the world population.

The investment that promises the biggest short-term payoff in controlling population growth is making sure that safe and effective family-planning methods are universally available. Additionally, the inequalities between the sexes that exist in many developing countries also should be addressed; it has been demonstrated that educated and emancipated women know how to space their pregnancies.⁴ Poor countries also desperately need stronger economic development, which in turn reduces the social demand for large families.⁵ While none of this is easy to implement culturally or politically, the simple truth is that rapid population growth is one of the few solvable problems in an otherwise complicated world.

Humanitarian Disasters. A number of African nations, notably Ethiopia, Sudan, Angola, Liberia, Zaire, Mozambique, and Malawi, are permanently threatened by famine. Food shortages in South Asia raise similar fears; many fret as well about the 800 million people (also mostly in Africa and South Asia) who are chronically hungry and undernourished. The frequency and scale of humanitarian crises that require the international community to overcome food shortfalls with food aid have increased substantially in recent years. The number of recipients of UN humanitarian assistance jumped from one million in 1970 to 17 million in 1993. Food aid for UN emergency relief operations has grown correspondingly, from one million metric tons in 1979-80 to 4.5 million metric tons in 1993-94.⁶

At first glance, events in Africa and South Asia seem to confirm the theories advanced in 1798 by Thomas Robert Malthus, the English economist who gave his name to predictions of mass starvation.⁷ The Malthus thesis is

that populations will always outstrip the food supply because food supplies grow arithmetically while populations grow geometrically. China's Hung Liangchi recently paraphrased Malthus: "The population, within a hundred years or so, can increase from fivefold to twentyfold, while the means of subsistence . . . can increase from three to five times."⁸ Pessimists claim that the food shortfall in Africa and South Asia is merely the tip of the proverbial iceberg. They claim that food shortages in those regions are indicative of something far more ominous: the world food supply—the total amount of food available to all of the people in the world—is being squeezed. If they are right, humanity itself can ultimately be at risk.

Livestock. As people improve their living standards, especially through increased income, they usually eat more food. Also they generally begin to eat more meat, which requires an enormous amount of grain to feed their livestock. Beef cattle are especially inefficient in this respect, producing only one pound of meat for every eight to ten pounds of grain they consume. Compared to a pound of beef, however, that same eight pounds of grain can supply about ten times as many calories and more than four times as much protein when consumed directly by humans.

In the past, almost all beef cattle grazed on grass and other forage up to the time they were slaughtered. But since the mid-1900s, many feed lots—they fatten cattle on grain—have operated in the United States and Canada. Most beef cattle are fattened there, consuming enormous quantities of grain in the process.⁹ In effect, livestock consume more calories and protein than they produce; even chicken requires roughly two kilos of grain to produce a kilo of edible products.

To help redress this inefficient conversion of grain to calories, the United States could take the lead in helping to reduce the demand for feed grain for livestock in two ways. First, the demand for grain could decline significantly if the cattle industry raised some of its animals chiefly on forage. Second, the demand for feed grain would decline if we simply decided to eat less meat. Most people in the United States, for example, could probably reduce their meat consumption as much as 30 percent without ill effects; Americans consume more than four times as much grain, partly through meat products, as do people in developing countries. The demand for grain is also increasing because affluent people in newly prosperous places like China can afford to eat more, especially more meat.¹⁰ So restraint in meat consumption could gradually increase the amount of calories and protein available for human consumption as grain products.

Social Demand. It is useful to make a distinction between economic demand for food and what can be called social demand for it. When economists use the word *demand*, they generally refer to market demand in the context of purchasing power and price. But since poor people who cannot afford food are not part of the marketplace for grain, talking about the economic demands for

food in the world ignores a large segment of humanity. It also helps to explain why there can be food scarcity in Africa and South Asia in the midst of a surplus of food in places like the United States and the European Union (EU) countries.

The social demand for food reflects population increase and the tendency for increasing affluence to be accompanied by increased consumption of food, particularly meat. In this sense, the concept offers a more complete description of aggregate demand for food than does market demand. Social demand identifies the quantity of food the world needs to feed all of its people, irrespective of commercial demand for grain in the marketplace. Quantifying the social demand can help us to reconcile the usually conflicting views of the pessimists and the optimists. And if we can think of the world food supply in such a holistic context, we discover that the social demand for food is increasing. Living standards plunge when population outstrips economic growth, creating conditions for social unrest and civil war. And when marginal or depleted natural resources—land and water—can no longer support growing populations, conflicts can arise as desperate people become refugees and seek their livelihood in neighboring countries.¹¹

The finding that social demand for food is growing has strategic consequences. Countries with an abundance of food cannot ignore the problem of global mismatches between populations and foodstuffs, whether the mismatches are intermittent or permanent. The condition demands responses; it creates the kind of imperative that RAND Corporation's Marten Van Heuven frequently refers to: "Either you visit the problem, or the problem will visit you." The debate will continue over whether the relationship between anticipated population growth and arable land is cause for concern or merely a phase. The prudent individual or state, however, should be looking for hedges in the event the emerging scenario is Malthusian. All conflict, someone has observed, can be traced to resources.

The Supply of Food

Whether the world can grow enough grain to meet increasing social demand for food depends on several factors; the amount of food a country produces is determined in large measure by its agricultural resources—arable land, water, energy, and fertilizer. Of these, land and water are obviously the most important. Crop land must be fertile and fairly level; water can be from rainfall, irrigation, and in some limited instances, desalinization processes. In addition, many farmers depend heavily on energy resources, particularly petroleum fuels, to operate tractors, irrigation pumps, harvesters, and other farm equipment. Most also use some form of natural or man-made fertilizer to enrich the soil.

One of the first lessons every economist learns is that these agricultural resources, no matter how plentiful in some places, are scarce relative to what the global society would otherwise want. The permanent fact of scarcity

(the condition of being in limited supply) requires choices and creates costs. In the context of the world food supply, this means that no country has an unlimited supply of land, water, energy, and fertilizer. The more we explore technical ways with the potential to boost food production, the more we run into these natural and manmade limits. The limits need not lead to crisis; if they are ignored in assessing strategic options, however, threats may well develop that would put American soldiers at risk.

The Good News. We all know that potential threats sometimes never materialize. In fact, Malthusian forecasts about population growth outstripping the food supply have been proven factually wrong, at least until recently. For one thing, Malthus ignored, or at least did not foresee, the tremendous increase in arable land in newly discovered and exploited areas of the world. In addition, Malthus did not anticipate the rising productivity per acre that resulted from the Industrial Revolution.

Similarly, if we move to the latter half of the 20th century, we also find that doomsday conditions have not occurred on a global basis. In fact, global agriculture, in an aggregate sense, enjoyed substantial success from 1961 to 1994; during that period the world experienced a steady growth in the production of most food crops. In the past 30 years, global food output has risen faster than population.¹² In an aggregate sense at least, the world food supply has been growing over the long term.

We all need to thank Norman Borlaug, whose research led to what is commonly called the Green Revolution, for the steady rise in production. His ingenuity and innovation combined modern, higher yielding seed varieties of rice, wheat, and maize with intensive and innovative use of inputs such as fertilizers, irrigation, and pesticides. Most of the recent growth in food production in developing countries is a result of the higher yields stimulated by Borlaug's research.

For many years, the Green Revolution allayed fears that the world could not increase food production at rates that matched population growth. The results speak for themselves. Agricultural experts were amazed at the impressive growth rates in the global yields of wheat, rice, and maize.¹³ And countries such as China, which adopted Green Revolution methods of farming in their entirety, showed astounding yield increases. Even countries that adopted only parts of Borlaug's methods have shown substantial increases in yields.

The Green Revolution protected the environment by enabling farmers to grow much more food without a dramatic increase in the area of cropland. Dennis Avery, a former agricultural analyst at the US State Department calculates that ten million square miles, the equivalent to the whole of North and Central America, would have been cleared for farming had the new procedures and technologies not appeared some 35 years ago.¹⁴

The Bad News. The success of global agriculture in the aggregate has not been shared equally by all countries. Africa and parts of South Asia

continue to experience chronic malnutrition and periodic famines. This situation is particularly ironic because most African countries were self-sufficient in food at the time they became independent nations. Africa still has the potential to be a productive continent; its farmers are inventive and adaptive, and the continent has a third fewer people per acre than the developing world as a whole. Unfortunately, it is not living up to its potential; Africa presently is the continent most seriously affected by food shortages. Fifteen countries in the region are facing food emergencies. Of the 27 countries with household food security problems, 22 are in Sub-Saharan Africa.¹⁵ Estimates of the number of Africans at risk range from five to 20 million. Consequently, many Africans and South Asians are now heavily dependent on imported food for their survival.

The immediate cause of the 1992 famine in Somalia was drought. But the deeper causes of Africa's declining ability to feed itself are more complex, an unfortunate interplay of natural and human conditions. Certainly lack of rainfall and persistent civil strife contribute to recurring food gaps. But most experts agree that the basic problem is that African governments neglect investment in agriculture. Instead of empowering the countryside, those governments tend to have an anti-rural bias and an obsession with rapid industrialization. They also spend, on average, four times as much on armaments as they do on agriculture. Ethiopia, for example, continually asks the rest of the world for food, yet as much as 43 percent of its national budget has been spent on its military establishment.¹⁶

In addition, Africa's rapid population growth and counterproductive public policies also contribute to food gaps. Despite the fact that total food production has more than doubled in Africa and parts of South Asia since 1961, the rise in food production has not been enough to keep up with population growth there, which tends to confirm part of Malthus's theory.¹⁷ But Africa's problems are largely the result of self-inflicted wounds rather than the world approaching some natural limit to food production, a distinction that Malthus did not make.

That is a difference without distinction, however, for the African who is hungry and malnourished. For whatever reason, many developing countries in Africa and South Asia simply don't have enough food at hand to feed their people. Sometimes this is attributable to a lack of foreign exchange to import enough food at market prices to overcome the food shortfall. At other times, food is available to meet economic demand, but the social demand for food is not met because large numbers of the poor lack the money to purchase food on a commercial basis.

The considerations that follow—call them causes or effects—influence one's perceptions of the availability of food in the world. Some, such as specific water resources or humanitarian interventions, tend to affect the food supply of a single state or region. Others, such as the amount of arable land in

cultivation, improvements in fertilizer, or the introduction of hybrid species, can affect the supply of food in a region or the entire world. The list is not exhaustive, but it contains sufficient information to provide a sense of the complexity of the food supply system. Taken together, these considerations can encourage measured responses to both optimistic and pessimistic strategic estimates of the influence of food supplies on national security issues.

Interventions

Interventions into the food supply can be classified as humanitarian and governmental. The paradox is that both, while necessary, tend to destabilize the food supply system in a country.

Humanitarian. Foreign aid packages that seek to prevent famine or offset chronic food shortages have become increasingly familiar in recent years. Global redistribution of food in 1993 by various agencies and organizations was impressive in real terms; a record 17 million metric tons of food was delivered to the chronically needy that year. Unfortunately, this figure still fell far short of the total food aid needs of that group.¹⁸ The International Food Policy Research Institute (IFPRI) estimates a remaining shortfall of seven to ten million metric tons in the per capita global caloric intake to meet recommended minimum levels among the chronically hungry.¹⁹

Unfortunately, such interventions are often a mixed blessing for the recipients of the food. While these massive giveaways undeniably provide temporary relief, foreign food aid actually hurts the recipients in the long run. When the United States provides food at no cost to developing countries, the relative price of food versus other commodities is altered. Signals to potential investors in agriculture in these countries are discouraging rather than encouraging. This, in turn, undermines long-run self sufficiency in food production. In short, food aid treats symptoms, not causes of food gaps.

Government. A similar market distortion occurs when governments in developing countries set food prices at low levels. The policy is politically attractive, since it provides cheap food for growing urban populations. But farmers in the developing countries soon discover that the commodity prices paid by the government are often so low that they do not cover production costs. A low-price policy diminishes the incentives to actual and potential farmers to increase the food supply. The farmers, in turn, react by reducing the amount of food they produce. The resulting downward spiral often ends as a food shortage, triggering a vicious cycle that produces a need for more external food aid.

Poor countries need to permit returns on agriculture sufficient to raise rural incomes, even for the landless; they also should seek ways to spur economic development throughout their economies. In this sense, the food shortage is at least partially about poverty. And the poverty of farmers should be addressed by policy changes to restrict government interference in the agricultural market-

place altogether. None of these prescriptions will be applied without strife, however. When Jordan recently tried to free its wheat markets, city dwellers rioted.²⁰ Governments should be challenged to shift their focus to the poor rural producer, rather than continue to pander to the urban dweller.

This does not mean governments should stay on the sidelines. They can, and should, look for measures that tend to create an attractive infrastructure, one that enables private agriculture to expand to meet market pressure for increased consumables. One way to reach this objective is to spend less money on guns and more money on butter—investing in rural infrastructure, including bus and truck transportation and improved water and irrigation systems.

But what can international food agencies do about people who have no money whatsoever? Those agencies are relatively well equipped to deal with extraordinary, nonrecurring events, such as the drought that triggered the famine in Somalia. But they lack the resources to meet completely the chronic needs of the malnourished millions in Africa and South Asia. Comprehensive macroeconomic strategies in the affected countries, rather than short-term, stop-gap policies, are required to deal with chronic underproduction of food. Governments in poor countries must work with the IMF and the World Bank to create market-friendly economic development strategies that will systematically reduce poverty.²¹

Change—cultural, social, political, and economic—sufficient to create permanent improvements in the lot of the chronically poor will not occur quickly or easily. The long-term goal of these countries should be to provide steady purchasing power to previously poor people to allow them to buy food commercially. Seen from this perspective, chronic hunger and malnutrition have more to do with poverty than with reaching full capacity in food output.

The Grain Slowdown

But are the poverty and hunger we see in Africa and in parts of South Asia really self-contained? Is this grim situation occurring in a world full of food? Not exactly. Even in the aggregate, things are not altogether rosy for global agriculture, at least in terms of output. For although world food production continued for several decades to grow faster than population, population growth is beginning to catch up, because the rate of growth in world food production is declining. From 1961 to 1992, growth in world agricultural production decelerated, dropping from three percent annually in the 1960s to 2.3 percent per year in the 1970s and two percent during the 1980-92 period.²²

Given these declining growth rates, can the capacity of the world agricultural system continue to feed a world population increasing by about 90 million people each year? Perhaps; consider, however, the state of ocean-produced food. Maritime experts agree that almost everywhere fish stocks have been plundered to the point of exhaustion. Some would ask, having reached a natural limit on food from the sea, whether a natural limit on grain can be far behind.²³

Higher Yields

To a certain extent, Green Revolution methods can continue to make farmland more productive. That's because there is still considerable untapped potential for its methods and technologies around the world. For instance, the technologies of the Green Revolution failed to penetrate much of sub-Saharan Africa. Peter Hazell of IFPRI points out that India successfully feeds twice as many people as Africa on 13 percent of the land area of that continent. Another source suggests that at least part of the reason for Africa's inability to feed its people is that fertilizer use in Africa is only one fifteenth that of Chinese levels.²⁴

Similarly, innovative and intensive use of irrigation has helped to produce stunning results. The Food and Agricultural Organization (FAO) is cautiously optimistic that yield increases will continue. This is because of the existing wide disparities in yields among the best performing countries (using intensive Green Revolution irrigation methods) and those countries using less innovative irrigation practices. For example, rice yields on irrigated land vary from one to ten metric tons per hectare; today's average yield of 3.7 metric tons per hectare is well below the 6.7 metric tons per hectare achieved by the best performing countries.²⁵ And average yields of wheat and maize on some irrigated land are only about half the yields achieved, again, by the best performing countries.²⁶ Thus, FAO argues that there is considerable room for improvement by farmers currently achieving less-than-peak yields.²⁷

In Asia average crop yields are a mere 40 percent of the yields achieved by scientists using the best technology now available. In Andhra Pradesh, India, for example, scientists have boosted yields almost sixfold by planting a double crop of sorghum and chickpea instead of the single cropping method used by local farmers. Thus, if farmers in the tropics have enough water, fertilizer, and other essential resources, they can grow two or three crops a year on the same land, instead of one crop, with much higher yields to show for their informed and intensive use of the same amount of acreage.²⁸

Expanding Arable Land

Over the past three decades the expansion of cropland area has been significant in two regions: sub-Saharan Africa and Latin America. In fact, sub-Saharan Africa stands as the only region in the world where expansion of arable land contributed nearly as much as yield increases to the growth of cereal production during the 1961-1990 period. In Latin America during the same period, expansion of arable land accounted for nearly one third of recorded production gains.²⁹

At first glance, there would appear to be potential for developing new cropland. Despite a strong trend toward urbanization in developing countries, there remain relatively large areas of sub-Saharan Africa and Latin America that are potentially suitable for farming. In each of these areas, FAO estimates that expansion of arable land will contribute about 30 percent to the increase

in crop production.³⁰ One World Bank estimate suggests that the world's farm acreage could increase by ten percent over the next 40 years.³¹

On closer examination, however, things look less promising, because most of the good arable land is either fallow or already in use. The land remaining in Latin America and sub-Saharan Africa is not prime land; much of it has tropical soil and a climate not conducive to farming.³² So yields from such land would tend to be low. This fact is well known, and it is difficult to get farmers to settle and develop these areas voluntarily. Financial incentives alone are not sufficient to induce settlement, because these lands are mostly in remote areas, far from markets and transportation. Expensive infrastructure would be needed before the lands could support commercial farming. In short, it would be difficult, costly, and time-consuming to develop new land for farming in the very areas where others have identified opportunities to do so.

Irrigation

A number of conditions set clear limits on how many of the four primary agricultural resources can be harnessed to produce higher yields around the world. Since rainfall is distributed unevenly over the earth's surface, some farmers are dependent on irrigation water, if it is available, because local rainfall is too light or uncertain to raise crops to maturity. But the supply of irrigation water is limited; farmers in some countries use nearly all the available supply, creating tension with the rest of society and frequently with neighboring countries as well.³³

Environmental factors also set limits on higher yields, causing international agriculture strategists to be concerned about features of the agricultural system that Malthus never dreamed of. Global warming, for example, purportedly threatens to desolate at least some productive arable land. Optimists counter with the idea that a measure of global warming could serve to transform some of the barren tundra into new arable land, thus offsetting losses elsewhere.

An environmental backlash appears to be developing against some of the Green Revolution policies encouraged during the 1960s and 1970s: notable among them are technological solutions to the food supply problem, such as irrigation, and the use of farm chemicals and new high-yielding seed varieties. Consequently, the rate at which cropland is brought under irrigation is declining. FAO now predicts that irrigated land in developing countries (excluding China) will expand at a rate of only 0.8 percent annually, which is much slower than the 2.2 percent annual increase in during the 1970s and the 1.9 percent annual increase in the 1980s.³⁴

This decline is mainly due to the increasing cost of irrigation, both development and maintenance, and the growing competition for water uses cited above. Irrigation's environmental and health effects also inhibit further expansion. For instance, millions of hectares of irrigated land, especially in

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Asia, have become waterlogged or have been rendered infertile because the water has left deposits of salt. Salinization problems from improper irrigation techniques reduce crop yields and constrain future production.³⁵

Fertilizer

The fertilizer situation is not very promising either. Nitrogen fertilizers used for agriculture are currently made from natural gas. But the supplies of petroleum and natural gas are strictly limited. And while increased use of fertilizer can help farmers produce more food, it can also cause environmental problems. Nitrogen fertilizers sometimes create a buildup of nitrogen compounds in the soil. Chemical fertilizers that run into rivers and lakes cause ugly, slimy blooms of algae.

Water pollution has caused the European Commission of the EU to target their farmers: “If you pour fertilizer into the Thames, the Seine, or the Rhine, you are likely to affect fisheries in the North Sea,” explains one EU official.³⁶ The EU is expected to act early in 1997 to require all water users to pay the full “economic cost” of water in a drive to eliminate serious water pollution and waste. EU environmental officials have completed a framework directive that could severely affect farmers, who pay very little for their water in most EU states. The draft directive defines the full economic cost of water as including a charge for environmental costs as well as operational and management costs, capital costs, and reserves for future investments. The proposal is almost certain to spark a fierce counterattack from farmers affected by the changes.³⁷

Higher Costs

Although energy and fertilizer can make farmland more productive, increasing costs of energy and fertilizer also drive producer costs higher. Food prices rise in due course, eventually out of the reach of millions of people throughout the world who cannot afford to buy all the food they need even at lower prices.³⁸ Ways and means should be sought to expand food production at a cost that most farmers and consumers in developing countries can afford.

And even if a farmer can afford to use more expensive fertilizer and irrigation methods, he soon discovers trade-offs between the costs of these

inputs and higher yields he can expect from them. In other words, greater use of these resources makes land more productive, but only up to a point. For instance, most farmers in the United States use seven to ten times as much fertilizer on each unit of land as do farmers in developing countries.³⁹ But US grain yields are only about twice as large as those in developing countries. US agribusinesses might be able to afford this kind of expense, but marginal farmers in many developing countries simply cannot afford the additional resources that the Green Revolution requires.

Ecological Degradation

Expansion of arable land can have other harmful consequences. At least 45 percent of potential cropland in sub-Saharan Africa and Latin America, for instance, is under forest or is in protected areas.⁴⁰ In many cases, conversion to arable land would destroy the forests and cause the loss of biodiversity, which in turn could hinder medical research.

The increasing need for food already has caused the deforestation of significant amounts of marginal land. In the short run, the new land sometimes increases yields of specific crops. Over time, however, some of this new cropland is not sustainable, and the total amount of arable land can actually shrink. In many regions, trees that have created a barrier to the encroachment of the desert have been burned for fuel, thus causing the fragile topsoil essential to farming to be blown away by desert winds.

Subsequently, the scarcity of wood which accompanies deforestation can require farmers to use animal dung for fuel, diverting some of it from its traditional use as fertilizer. Fallow periods frequently have been shortened, resulting in overplanting and overgrazing; soil abused in this manner eventually wears out. Finally, deforestation and land overuse have reduced the capacity of the land to absorb moisture, thus diminishing its productivity and its ability to resist drought. Experience in mitigating ecological degradation has not been encouraging.

Diminishing Returns

Because so much of the Green Revolution success story has been due to increases in yield, a key question for the future, given the obstacles cited above, is whether such increases in food production will continue, and if they do, at what rates. Unfortunately, there are already strong indications that the Green Revolution is beginning to run out of steam.

Although total yields have increased, yields of the three cereals in developing countries—rice, wheat, and maize—have recently been rising at a slower rate than in the 1960s and 1970s.⁴¹ It may be that the existing technologies of the Green Revolution will allow food supply to continue to grow only for so long. Thus, traditional technological improvements, while essential to any comprehensive food production strategy, can go only part of the way to feeding the world.⁴²

Other Options to Increase Supply

Given that cropland expansion can probably only do a small part to boost grain production, and that squeezing more yield out of existing cropland cannot do all of the rest by itself, we need to explore other ways to boost grain production to feed eight billion people in the next century. One way we can increase grain output is by applying better farming techniques. For instance, optimizing the timing and density of planting and seeding has raised corn yields by as much as 2.5 metric tons per hectare and soybean yields by one additional metric ton per hectare.⁴³ Some other ways to improve at the margin include:

- Governments in Africa could encourage low-technology, small-scale agriculture. Idriss Jazairy, a former high-level UN agriculture specialist, argues that the key to Africa's food future is the very small farmer so long ignored by African governments and outside donors:

The failure of past development strategies is that they have been based on a trickle down, social-safety net approach that emphasizes the consumption needs of the poor and identifies the poor as a burden on the growth process. Instead, we need to focus on their producing possibilities. We need to see that development is something that happens because of the poor, not in spite of the poor.⁴⁴

- Women in Africa may also be a key to Africa's food future. In the past, too many regional governments have treated women as second-class citizens. Despite the fact that 85 percent of rural women in Africa produce 80 percent of Africa's food, less than ten percent of them own land or resources because of laws that discriminate against them. If African governments did more to empower women farmers with such things as land tenure, it is likely that they would make the long-term investments (e.g., planting more hedges and trees that are needed to arrest soil erosion).⁴⁵

- Yields can be improved substantially by reducing post-harvest losses. The developing world generally lacks required facilities for crop storage; thus, even when crops are good, it is difficult to accumulate a surplus for the lean years. A large percentage of domestic farm output in some parts of Africa is lost to rats, insects, and spoilage; in Kenya, for example, about 24 percent of the harvested grains are damaged by molds, fungi, insects, rodents, and other pests. Estimates of total global marketing and distribution losses vary between eight percent and 25 percent of the harvest.⁴⁶ Significant gains can be obtained through better processing and improved storage and distribution facilities.

- Research scientists are now working to develop varieties of grain that not only produce higher yields but also have other improved characteristics. Such a grain might supply a more complete combination of amino acids, make more efficient use of water and fertilizer, and provide better

resistance to insects and disease. The problem is that it is extremely difficult to develop a plant variety that has so many different characteristics. The necessary research therefore takes much time and money.

- Significant increases in supply may be possible through new developments using conventional plant breeding techniques. And at least with rice, a dramatic leap forward is already in sight. Researchers at the International Rice Research Institute (IRRI) in the Philippines have recently bred a new strain which invests about 50 percent of its energy in growing its ear, which contains the edible bits, compared with 30 percent in older varieties. It lifts yields 20-25 percent above the highest yielding varieties now available in Asia.⁴⁷

- These opportunities pale in comparison to the seeming potential in biotechnical research. As the following discussion shows, however, progress in this area is not without its problems.

Biotechnology has been helpful in developing increased pest resistance in some crops and drought resistance in others. In some cases, it is speeding up the process of plant breeding and lowering the cost of achieving such research goals as greater insect and disease resistance.⁴⁸ These successes have led some agricultural experts to argue that biotechnology has the potential to create another Green Revolution. But it would be wrong to suggest that a cornucopia awaits; so far at least, biotechnology has not led to a single dramatic gain in yield of any grains.⁴⁹ The most likely reason is that research and development in the best known form of biotechnology, genetic engineering, is concentrated in medicine, not farming.⁵⁰ Even where agricultural biotechnical research is taking place, most of it is being done by private firms in the West, who tinker with the qualities of fruits and vegetables for rich markets, rather than trying to boost the quantity of basic grains for the poor.⁵¹

Unfortunately, the prospects for farm research in biotechnology no longer appear promising. After steady growth in the 1960s, aid fatigue has set in; IRRI is now laying off a third of its 1500 employees following budget cuts. If governments from rich countries continue to slash their own budgets for farm research, grain prices will have to rise to improve incentives for bio-engineers to switch from medical work to agricultural research.⁵² In addition, many environmentalists have joined forces with budget cutters and are now campaigning furiously against agricultural biotechnology. For instance, consumer groups and retailers in several EU countries have protested against the introduction of a genetically modified soybean developed in the United States. Soya is used in 60 per cent of processed foods, and there is concern that consumers will have no choice about whether to eat the modified version. The soybean has been approved by the EU as safe; the protests derive from the fact that the US product is neither labeled nor segregated from other stocks.

In this regard, three naked women enlivened the November 1996 World Food Summit in Rome, brandishing signs at the US Secretary of

Agriculture demanding that the summit "Ban the Gene Bean," a reference to the controversial practice of genetically modifying soybeans.⁵³ While it might be easy enough to classify the protesters and their organizations as extremists with fanciful dreams of influencing policy, the following example indicates they are closer to the mainstream than their attire would suggest.

On 5 December 1996 Britain warned the United States not to try to force genetically modified maize onto the European market while concerns remained about its safety for human and animal health. In a stinging public demarche to Washington, John Gummer, the UK Environment Secretary, said in a BBC radio interview: "It is true that the Americans are trying to force this onto Europe without us making our own minds up about it. One of the important reasons for the EU is that we are strong enough to say to the Americans that we decide what we want in our food chain and not you."⁵⁴ The tough UK stance occurred during heightened consumer concern about food safety in Europe following the "mad cow" crisis in 1995 and 1996. The European Union banned exports of British beef after scientists discovered a link between "mad cow disease" and a new variant of Creutzfeldt-Jakob disease, a fatal human brain illness.⁵⁵

Senior US trade and agriculture officials have written to the European Commission expressing dissatisfaction at EU delays in opening the market for modified maize and for rice. The US stake in the outcome is substantial; the EU, mainly Spain and Portugal, imported about \$500 million of US maize in 1995. While only about 0.6 percent of this season's US maize crop consists of the modified variety, EU officials have warned that all US maize could be blocked if it cannot be segregated. The dispute threatens to create a trade row if it is not resolved soon.

China's Disappearing Act

As the largest potential source of new demand for grains, China will continue to attract considerable attention in discussions of food production. Prospects for developing more farmland in China are discouraging, a significant change from the height of the Green Revolution, when China's rising production of grain was nothing short of phenomenal. China now has an estimated 125 million hectares of cropland, but the total has been shrinking for some time and is likely to continue to decline as China industrializes.⁵⁶ Consequently, a rising appetite for grain-intensive meat in the diet of prosperous Chinese, and no substantial additions to arable land, will cause China to become a large importer of grain. How large an importer is a subject of contentious debate among international agriculture experts.

In 1995, Lester Brown, the world's leading modern Malthusian and President of the Worldwatch Institute, said that China will lose roughly half its grainland by 2030, as roads, factories, and golf courses spread across the

countryside. If he is right, China's imports of grain would overwhelm world food markets and lead to skyrocketing grain prices.⁵⁷ He shocked grain dealers with a forecast that China would import 216 million tons by 2030.⁵⁸ While all the experts agree that China will be a major grain importer in the future, few are as pessimistic as he; most think the loss of land and the size of Chinese grain imports will be significantly less than what Brown predicts.

New research by a team of US and Chinese economists at the Organization for Economic Cooperation and Development (OECD) reports that Chinese grain imports will stabilize at levels much lower than predicted. The authors of the study have developed projections which run counter to Brown's earlier predictions.⁵⁹ Their OECD report says China will become a significant importer but "will not empty" world grain markets. Under the baseline scenario in their research, grain output is expected to reach 410 million metric tons by 2000, well below Chinese official projections of 455 million metric tons. OECD says China's grain imports are likely to jump to around 40 million metric tons annually by 2000 from just three million metric tons at the start of the 1990s, but will stabilize at around 43 million metric tons from 2010.

The OECD study agrees with Brown that higher imports will reflect rising demand for feed grain and meat, as well as a slowdown in supply due to reduced investment in agricultural research during the late 1980s. But the study disagrees with Brown when it argues that China itself might limit grain imports, especially if these began to affect world prices severely. Not only would that be an incentive to raise domestic production, but there might be foreign exchange constraints on large grain imports. Poor port and transport infrastructure could also impede imports, while China's leaders have long been constrained by a desire for self-sufficiency.⁶⁰

Assuming that the OECD study on China reflects a reasonable scenario based on defensible assumptions, the amount of disappearing cropland in China means that a global expansion of farmland can play only a small part in boosting world food supplies. That being the case, a much greater part will have to come from squeezing more from existing land. In essence, that's what the Green Revolution did.

The Immediate Future

Pessimists claim that the gradual slowdown in productivity gains has led to a genuine crisis in the world food supply. They claim that recent data finally provide conclusive indicators that the world is running out of food, and at first glance they appear to be right. The food supply was squeezed during 1994 and 1995; for instance, there's no denying that food prices rose and food stocks fell during this period. Between June 1993 and May 1996, food prices rose by 47 percent after many years of decline.⁶¹ In particular, corn-futures prices rose 57 percent from the start of 1996 to a record-setting \$5.48 a bushel

by July. Wheat-futures prices also jumped to an all-time high of about \$7 a bushel over the same period, effectively double the price that had been stable since early 1995.⁶² The higher prices did severe damage to many African nations, which are net importers of food. According to the UN Food and Agriculture Organization (FAO), higher prices in 1995 alone increased the cost to developing countries of cereal imports by about \$4 billion.⁶³

Between June 1993 and May 1996 the world's grain stocks fell to 13 percent of annual consumption, the lowest level ever recorded.⁶⁴ Even in the United States, "the breadbasket of the world," US granaries in early 1996 held a precariously low amount of grain—just 426 million bushels of corn at one point in September, the lowest level since the 1970s.⁶⁵

Should one conclude that the whole world, as opposed to Africa and South Asia, is in fact running out of food? Perhaps there's another explanation. At the World Food Summit, elder statesmen were curiously relaxed in contrast to the alarm shown by many summiteers. The elders seemed satisfied that complacency about food security had been shaken, but perhaps they were thinking that they had seen the picture before. These sober and dispassionate individuals from such places as the World Bank may have remembered a similar conference in Rome a quarter century earlier. Then, as now, the mood was equally alarmist. Then, as now, the world was running out of food, or so it seemed. The pessimists at the 1974 conference predicted dire consequences, even mass famine, which proved wildly wrong.

Admittedly, the market signals in 1994 and 1995 did show some kind of shortage, but not all shortages are the same. A close examination of data from this period reveals no structural shortage that one would anticipate if the world food supply had in fact reached full production capacity. Instead, unusual circumstances of a short-term and reversible nature account for the rising prices and de-stocking of grains. Three factors—the weather, the fall of the Soviet Union, and the withdrawal of land from production—are particularly atypical of a systemic crisis in food production.

The high prices reflected a record low crop production due to unfavorable weather. Conditions for wheat stayed dry through May 1996, while weather for corn and soybeans remained dry in key producing regions into June 1996. Second, food production in the former Soviet Union fell dramatically because subsidies had been withdrawn from inefficient state farms. Compared with a peak production year in 1989, production in 1994 was down fully 40 percent.⁶⁶ That trend should reverse itself as economic reforms take hold in Russia and the Ukraine. And third, the fall in grain stocks reflects policy changes in the United States and Western Europe to rein in the huge overproduction of grain that had occurred in the 1980s. After their grain surpluses had reached embarrassingly high levels, the governments in Washington and Brussels (the EU) began paying grain farmers handsomely to let some of their

land lie fallow. Over the past ten years, for example, US farmers took about 37 million acres of cropland out of cultivation.⁶⁷

But not long after concerns about grain supply pushed grain prices to record-breaking levels, grain prices dropped. Corn-futures prices fell about 50 percent per bushel between July and December 1996, from \$5.48 to the year's low of \$2.60. Similarly, wheat-futures prices fell abruptly during the same period, from \$7 a bushel in July to below \$4 a bushel by December.⁶⁸

Why the nose-dive in grain prices? The two main reasons were the better-than-expected weather and a significant surge in worldwide grain supply. Timely summer rains and warm temperatures late in the 1996 growing season boosted the 1996 US corn and soybean crops to near-record levels. Second, farmers responded to higher prices by bringing land back into production; US farmers added eight million acres of corn in 1996, and large crops came from Europe, Australia, and South America. In short, markets are adjusting to the weather and to various policy decisions, just as Adam Smith, the English free-market economist, would have expected.⁶⁹

Grain prices in 1997 are likely to range well below the unusually high prices of the first half of 1996; commodity analysts on Wall Street estimate that wheat will average about \$4 a bushel and corn about \$2.60. Several factors will add to the further growth in grain supplies. Moist growing conditions in South America will lead to record crops there, and freedom-to-farm legislation—passed in the United States in 1996, and gaining momentum worldwide—will allow farmers to build up grain supplies when market conditions warrant. Finally, genetically enhanced crops could increase yields as that form of biotechnology gradually becomes more acceptable.⁷⁰

Conclusions

Even if a world food crisis is not imminent, we should ask ourselves whether trends have indeed invalidated Malthus's thesis, or whether they have merely transformed or deferred it. One thing is certain. Given that the population in 2035 could be about twice what it is today, there will have to be a lot more grain available to meet the demand.

Most of the ways to grow more grain result from greater farm output, which can be increased either by developing new farmland or by making existing farmland more productive. The world food supply also benefits from reducing the demand for feed grain (e.g., reducing population growth) and by developing new sources of food. At the same time, there are many seemingly marginal changes in how the world manages farming that could substantially affect chronic regional shortages. Efforts to make better use of existing cropland, to reverse deforestation, to vest women with rights they now lack in some agricultural communities, to modify traditional farming practices, to reduce losses of each harvest to pests and decay—each and all could increase

the amount of grain that is available each season for consumption by humans and animals.

Profound systemic change, such as was prompted by the principles of the Green Revolution, is more problematic. Biotechnology, once the hope of many agricultural specialists, may never rival the Green Revolution's legacy, but it is also probably too soon to write it off. Unanticipated breakthroughs, new theories, proof that genetically altered foodstuffs do no harm to humans when consumed directly or through animal protein—all have the potential to stimulate quantum shifts in the global supply of food. Yet we've seen enough constraints to question anyone's forecast of a food cornucopia.

In the near term, strategists need to avoid the twin pitfalls of complacency about a world full of food and doomsday alarms about a global food crisis. What is needed from world leaders is an unprecedented level of cooperation in the formulation of a long-term international food strategy. One consequence of failure could be resource-driven conflicts that might have been avoided had policymakers understood the nature and extent of the world food supply problem and taken appropriate steps to deal with it.

What is needed to avert that outcome is a comprehensive strategy that synthesizes diverse approaches to improving the growth, harvesting, storing, and distribution of the annual crop of grains, while prioritizing resources for the most promising areas of improvement. Thus, biotechnology, the sensible expansion of cropland, the responsible extension of the Green Revolution technology in neglected arable land, continued basic research into plant genetics, and smarter public policies all are important in this holistic approach. Curbing population growth and other demand reduction programs are also essential parts of any plan to stabilize the world food supply for the long term. None of these objectives will be easy to define or carry out; they all have the potential to affect profoundly the values, cultures, societies, and beliefs of the affected peoples.

When Norman Borlaug received the Nobel Prize in 1970 for his research leading to the Green Revolution, he warned that the new methods would provide only a limited respite, 30 years at most, in which governments could develop and carry out supply and demand policies for dealing with the world food supply challenge.⁷¹ As we approach the end of Borlaug's window of opportunity, the world is still groping for that strategy. Until we develop one, there will continue to be those who yearn for simple solutions to the complex problems of world food supply and demand.

The real danger is to relegate the world food supply to the backwater of strategic studies. Strategists need to understand that the world food supply is a global challenge that bears most heavily on the peace and prosperity of the international system. World leaders have an unprecedented opportunity to move this global issue to the top of their agendas. If they fail, their successors

may have to deal with the problem “when it comes to visit” as a major and enduring crisis in the early decades of the next century.

NOTES

1. For a relatively optimistic view of the world food supply, see Tim Dyson, “Be Wary of the Gloom,” downloaded from *People and the Planet* home page, the Internet, 24 November 1996 (<http://www.oneworld.org/patp/index.html>); also see Tim Dyson’s upcoming book, *Population and Food: Global Trends and Prospects*, to be published early in 1997.
2. For a comprehensive US government analysis of the international supply, demand, and trade of major agricultural commodities to 2005, see US Department of Agriculture, *Long Term Projections for International Agriculture to 2005*, Commercial Agriculture Division, Economic Research Service, Staff Paper No. AGES 9612, August 1996. In this regard, I want to thank Rip Landes and all of the impressive people at the foreign office of the US Department of Agriculture for providing me data on this complex subject.
3. See Lester R. Brown, “Ninety Million More,” in his *Full House: Reassessing the Earth’s Population Capacity* (New York: W. W. Norton, 1994), ch. 3; and Lester R. Brown, et al. “A Stable World Population,” in his *Saving the Planet: How to Shape an Environmentally Sustainable Global Economy* (New York: W. W. Norton, 1991), ch. 7.
4. See *Closing the Gender Gap: Educating Girls* (Washington: Population Action International, 1994).
5. George D. Moffett, *Global Population Growth: 21st Century Challenges*, Headline Series No. 302 (Ithaca, N.Y.: Foreign Policy Association, Spring 1994), pp. 68-69.
6. Patrick Webb, “A Time of Plenty, A World of Need: The Role of Food Aid in 2020,” *International Food Policy Research Institute (IFPRI) 2020 Brief No. 10* (Washington: IFPRI, 1995), p. 2.
7. See Thomas Robert Malthus, *Population: The First Essay*, foreword by Kenneth E. Boulding (Ann Arbor: Univ. of Michigan Press, 1959).
8. *The Economist*, 16 November 1996, p. 18.
9. See Lester R. Brown, “Moving Up the Food Chain,” in his *Who Will Feed China? Wake Up Call for a Small Planet* (New York: W. W. Norton, 1995), ch. 3.
10. *Ibid.*, pp. 44-53.
11. See George D. Moffett, *Critical Masses* (New York: Viking Penguin, 1994); “Science Summit on World Population: A Joint Statement by 58 of the World’s Scientific Academies” and the “African Academy of Sciences on Population,” *Population and Development Review*, 20 (March 1994).
12. *Ibid.*
13. World Resources Institute et al., *World Resources: 1996-97* (Oxford Univ. Press, 1996), pp. 226-27. Hereafter *WR*.
14. *The Economist*, p. 23.
15. Food and Agriculture Organization of the United Nations, *The State of Food and Agriculture 1994* (Rome: FAO, 1994), p. 11. Hereafter FAO.
16. See Jeffrey Alan Lefebvre, *Arms for the Horn: U.S. Security Policy in Ethiopia and Somalia, 1953-1991* (Pittsburgh: Univ. of Pittsburgh Press, 1991).
17. See Food and Agriculture Organization of the United Nations, FAOSTAT-PC, on diskette (Rome: FAO, 1995).
18. See Margaret Missiaen et al., US Department of Agriculture, *Food Aid Needs and Availabilities: Projections for 2005*, An Economic Research Report, GFA-6, October 1995.
19. Patrick Webb, “A Time of Plenty, A World of Need: The Role of Food Aid in 2020,” *International Food Policy Research Institute (IFPRI) 2020 Brief No. 10* (Washington: IFPRI, 1995), p. 2.
20. *The Economist*, p. 18.
21. A market friendly economic development strategy includes a stable macroeconomy, a competitive microeconomy, investment in people, and global linkages. For a concise discussion of this concept, see The World Bank, *World Development Report 1991: The Challenge of Development* (Washington: Oxford Univ. Press, 1991), pp. 6-9.
22. Nikos Alexandratos, ed., *World Agriculture Towards 2010, An FAO Study* (Chichester, UK: John Wiley and Sons; and Rome: Food and Agriculture Organization of the United Nations, 1995), pp. 38-44.
23. See Lester R. Brown, “Overharvesting the Oceans,” in his *Full House*, ch. 5.
24. *The Economist*, p. 22.
25. Alexandratos, p. 14. One hectare equals 2.471 acres.
26. *Ibid.*, p. 174.
27. *WR*, p. 232.

28. *The Economist*, p. 22.
29. The World Bank, *World Development Report 1992* (Washington: The World Bank, 1992), p. 135.
30. Alexandratos, p.170.
31. *The Economist*, p. 22.
32. Alexandratos, p. 155.
33. See Kent Butts' article on the strategic importance of water in this issue of *Parameters*.
34. Alexandratos, p.160.
35. Pierre Crosson and Jock R. Anderson, "Resources and Global Food Prospects: Supply and Demand for Cereals to 2030," *World Bank Technical Paper No. 184* (Washington: The World Bank, 1992), pp. 47-53.
36. *The Financial Times-On Line*, 10 December 1996.
37. Ibid.
38. See Frances Cairncross, *Costing the Earth: The Challenge for Governments, the Opportunities for Business* (Boston: Harvard Business School Press, 1992).
39. For more on "the fertilizer fall-off" see Brown, *Full House*, pp. 121-31.
40. Alexandratos, p. 152.
41. Ibid., p. 39.
42. *The Economist*, p. 22.
43. Vaclav Smil, "How Many People Can the Earth Feed?" *Population and Development Review*, 20 (June 1994), 267.
44. Moffett, *Global Population Growth*, p. 36.
45. Ibid., pp. 35-36.
46. P. Berck and D. Bigman, *Food Security and Food Inventories in Developing Countries* (Wallingford, UK: Cab International, 1993), p. 19.
47. Brown, *Who Will Feed China?*, p. 78.
48. Brown, *Full House*, pp. 139-40.
49. Ibid.
50. *Economist*, p. 23.
51. Ibid.
52. Ibid.
53. Ibid.
54. *Financial Times On-Line*, 5 December 1996.
55. The origin of consumer concern cited here can be traced back to a British government announcement that there appeared to be a link between "mad cow" disease, also known as bovine spongiform encephalopathy or BSE, and ten cases of a new variant of the Creutzfeldt-Jakob disease, a rare but devastating human disease that progressively and fatally destroys brain tissue. The announcement caused widespread panic among British consumers and prompted a temporary ban on British beef in Europe.
56. Alexandratos, p. 15.
57. For an alarmist view of potential Chinese cropland loss, see Brown, "The Shrinking Cropland Base," in *Who Will Feed China?*, ch. 4.
58. *Financial Times On-Line*, 27 November 1996. For a copy of this OECD study entitled *China in the 21st Century*, contact the Publications Service, OECD, 2 rue, André-Pascal, 75775 Paris Cedex 16.
59. Ibid.
60. All studies on the world food supply are based on important assumptions. In this case, the OECD authors (Justin Lin of the University of Beijing, Huang Jikun of the Chinese Academy of Agricultural Sciences, and Scott Rozelle of Stanford University) note that their forecast is subject to wide variations depending on population and income growth. With high income growth total grain demand would reach 647 million metric tons by 2020, compared with 594 million metric tons under the baseline scenario. Equally, with high investment in research and irrigation, China could lift output to 627 million metric tons against 552 million under the baseline scenario.
61. *The Economist*, p. 21.
62. *The Wall Street Journal*, 2 January 1997, p. R35.
63. *The Economist*, op. cit.
64. The Economist Index of Food Prices, as cited in *The Economist*, p. 21.
65. *The Wall Street Journal*, op. cit.
66. See FAOSTAT-PC, op. cit.
67. *The Economist*, p. 22.
68. *The Wall Street Journal*, op. cit.
69. *The Economist*, p. 22.
70. *The Wall Street Journal*, op. cit.
71. Moffett, *Global Population Growth*, p. 29.

The Case in Favor of US Nuclear Weapons

ROBERT G. SPULAK, JR.

As America searches for meaningful diplomatic and military policies to protect and promote its interests in the post-Cold War world, there are essentially two poles of opinion with regard to nuclear weapons. First, there is the post-Cold War status quo, represented by the Clinton Administration's Nuclear Posture Review, conducted in 1993-94, which recommended few and minor changes from Bush Administration policies. And, second, there is an earnest attempt to delegitimize nuclear weapons by minimizing their role, their numbers, and their importance, spreading a kind of nuclear stigma. Far from actually settling the United States' long-term future nuclear policy, the Nuclear Posture Review was greeted with disappointment by those who had hoped to influence US nuclear policy in the latter direction.¹

The policies formulated under the Nuclear Posture Review were presented as a hedge against three concerns: the small but real danger that reform in Russia might fail and a new nuclear-armed government might arise, hostile to the United States; the slow pace of Russia's overall drawdown of nuclear weapons compared to that of the United States; and the security of nuclear components and materials in the nuclear nations of the former Soviet Union.² These concerns about an uncertain future, and about the Cold War legacy of 25,000 Russian nuclear weapons, led those engaged in the Nuclear Posture Review to recommend that the United States retain flexibility by maintaining the portions of the defense industrial base unique to nuclear weapons, ensuring sound stewardship for the nuclear stockpile, and ensuring the ability to reconstitute the nuclear forces that are drawn down.

Among proponents of nuclear stigma, there is an overarching presumption that it would be a good thing if the world could be made free of nuclear weapons, including our own. In contrast to the cautious recommendations of the Nuclear Posture Review, policies of stigmatizing nuclear weapons are seen to be positive measures that can approach the ideal of a nuclear-free

world, despite our inability to put the genie back in the bottle. These pejorative perceptions of nuclear weapons, should they prevail, would represent a shift in the attitudes of policymakers. Whereas most were once convinced of the necessity of nuclear weapons to form the bedrock of strategic deterrence and to counter the conventional might of the Warsaw Pact, the nuclear stigma philosophy is grounded in an optimistic academic debate about nuclear weapons in a less threatening world.

The purpose of this article is to point out that the nuclear stigma philosophy lacks careful consideration of both the risks *and benefits* associated with nuclear weapons. In fact, the true risks of nuclear weapons seem to be obscured at the same time that the benefits are assumed to have all but disappeared. Any policy made without full recognition of these risks and benefits is likely to have some serious unintended consequences.

Assessing Nuclear Danger

Nuclear stigma is an attempt to deal with the dangers associated with nuclear weapons. And indeed, there are many such dangers: danger of all-out nuclear war, danger of unauthorized use, danger of loss of US power relative to proliferating nations, danger of nuclear use by an irresponsible nuclear state, danger of accidental detonation. Although these and other dangers vary widely in consequences, likelihood, and many other characteristics, discussions of "reducing nuclear danger" tend to gather some or all of them under one heading and attempt to characterize them collectively.³ The policy recommendations to counter them usually include: sanctioning nuclear deterrence only against nuclear attack on the United States; no reliance on nuclear weapons for international political purposes; elimination of extended deterrence; an end to fissile material production; a comprehensive test ban; no strategic defense (tactical missile defenses may be okay); much smaller weapon stockpiles and deployments; and no first use. Authors typically appeal to the power of international institutions to guarantee security and to reduce and eventually eliminate the need for nuclear weapons.

Some of these recommendations may be good, some may be bad, and some may be irrelevant to the actual dangers of nuclear weapons. For example,

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although it is now unnecessary for the United States to produce more weapons-grade fissile material, it is hard to make the case that the positive effect of a US fissile material production cutoff or a comprehensive test ban is much more than symbolic or economic. Many of the recommendations to “reduce nuclear danger” actually could work at cross purposes. One of the most worrisome proposals—for a minimal US strategic stockpile—could actually interfere with nonproliferation⁴ by withdrawing extended deterrence from nuclear-capable allies who might then be motivated to develop their own nuclear deterrents. And although it’s probably a minor consideration, a comprehensive test ban might even interfere with the ability of existing or new nuclear states to improve the safety of their weapons, increasing the likelihood of accidental detonation.

Insistence on minimizing the numbers of nuclear weapons provides a good illustration of the conceptual and analytical problems related to stigmatizing nuclear weapons. Reducing the numbers of weapons might reduce the chances of nuclear war and improve the overall safety and security of our nuclear arsenal—but then again, it might not. Deterrence of war is one of the benefits of nuclear weapons discussed below; for now it is enough to assert that actions that undermine the credibility of our deterrent may make nuclear war more, rather than less, likely in the long run. Many of the other risks associated with nuclear weapons depend upon such aspects as the details of individual weapon designs, the security of the facilities where they are stored, the operational requirements of their delivery systems, and the design and integrity of the nuclear command and control system. If careful attention is not paid to all of these factors, reducing the numbers will not necessarily reduce the real dangers associated with nuclear weapons. In fact, an evident lack of interest in these kinds of nuclear issues at the highest levels in the US government could produce consequences far more important—and far more dangerous—than the number of weapons or the amount of nuclear material the United States possesses.

Further, a minimal stockpile, minimal deterrence, or a doctrine of defensive last resort intended to deter only the use of nuclear weapons is not enough. In any war between major powers there is too great a possibility of unprecedented, virtually terminal, devastation to civilization and mankind. The existence of nuclear weapons creates the risk of catastrophe, but it also creates the only way to ameliorate that risk by minimizing the possibility of war between the major powers. Nuclear weapons have this dual nature: they are the only possible solution to the problem they pose.⁵

Attempting to stigmatize nuclear weapons assigns a “nuclear danger” to our own weapons and activities on a par with (or, when it comes to first use, greater than) the dangers we face from the nuclear weapons of our potential enemies. For example, although there is no threat that the United States will

become a proliferating nation (since it already has nuclear weapons), the government has offered to place US fissile material under the supervision of the International Atomic Energy Agency. The proponents of international supervision of US fissile material, or other cooperative measures, will argue that the purpose is not to prevent the misuse of US resources, but to set an example for other nations to make it easier to implement a regime that will help to lessen the chance of the misuse of their resources. However, there is a clear implication that the trust that is missing when considering our own institutions is applied instead, by some, to the notion that the world has become a safe place and that international institutions can guarantee our security. The negative reactions of the public and Congress to placing US troops under United Nations command and allowing other nations in a coalition or potential coalition to dictate US policy (with regard to the former Yugoslavia, for example) are indicators why this transfer of trust may be unrealistic. The United States can use international tools to promote peace, but cannot rely on them as it would rely on its own resources. The US nuclear arsenal is our ultimate safeguard against the failure of those cooperative tools.

The policy of containment and strategies of deterrence, which depended upon a large and diverse nuclear stockpile, served the United States well for more than 40 years. New policies developed to adapt to the end of the Cold War may also have to last through good times and bad. Whatever strategic arsenal we construct and whatever policies for using this arsenal we develop may have to serve not only for a time of reduced threats, but for future crises when the existence of the United States may be threatened. We may be stuck with this arsenal, whether constructed carefully or by default through minimization, and these policies, whether developed carefully or by default through stigmatization.

A senior Administration official expressed this view:

The United States is building down its nuclear weapons deployments and modifying related command, control, and intelligence capabilities in response to budgetary and political pressures. It is not clear that what remains is a coherent totality, after the work of the "termites." Elements have been "thrown overboard" without a clear plan. . . . The [Nuclear Posture] Review must go beyond scenarios to justify the arsenal . . . because there are no obvious scenarios that would suffice. It must also take into account that it will cast a "20-year shadow" in terms of technology development, training, [and] decisions affecting the nuclear industrial base.⁶

The essence of nuclear stigma is the elimination, minimization, or stigmatization of nuclear weapons, their infrastructure, and the policies for their management, presumably leaving the minimum possible residual to contribute to "danger." In the game of chess, when one contemplates a sequence of moves that involves capturing or exchanging pieces, one always

***“Nuclear weapons have this dual nature:
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keeps in mind the maxim that “it isn’t what you remove from the board that is important, but rather what remains.” We should decide which of the benefits of nuclear weapons are vital or important for the United States and thoughtfully assess what is necessary to provide these benefits, including the ability to manage diverse risks far into the future.

The Benefits of Nuclear Weapons

Since the beginning of the nuclear era, there has been great discussion and debate about the risks and benefits of nuclear weapons. It is not my purpose to recreate that debate here, nor even to present a complete treatment of all the alleged benefits of US nuclear weapons. It is necessary, however, to summarize briefly the principal arguments in favor of US nuclear arms, since the proponents of nuclear stigmatization almost totally ignore them.

There are some who may be uncomfortable with ascribing benefits to weapons of mass destruction. However, these are not simply benefits devoid of risks. There is, in fact, a competition of “alternate risks”: the risks of various kinds that arise from having nuclear weapons and the equally serious spectrum of risks that would result from not having nuclear weapons. Possession of nuclear weapons creates benefits that can help to offset the risks of not having them.

Some argue that because of the collapse of the Soviet Union we cannot use history as any guide to the benefits of nuclear weapons.⁷ However, with the end of the Cold War neither the nature of the risks nor the nature of the benefits has changed in any fundamental manner. The nature of the benefits of nuclear weapons depends on the characteristics of the weapons themselves and on the need of the United States to have the capability to use force and the threat of force to protect our interests in a world where other nations will always have nuclear weapons. Some very important risks, such as the immediate risk of large-scale nuclear war, have indisputably declined in magnitude, at least for a time. The balance between risks and benefits has shifted, allowing the changes that have already been implemented in US nuclear posture, such as the withdrawal of most tactical weapons from Europe, the elimination of aircraft standing alert, and the elimination of tactical weapons on US ships. But it does not follow that with the end of the Cold War the benefits of nuclear

weapons have therefore disappeared and that the United States has no need to have the capability to use or threaten force to protect our interests. Before proceeding with truly revolutionary changes in nuclear policy, any formulation should carefully balance both the risks *and* the benefits of nuclear weapons.

Possession of nuclear weapons by the United States has historically been very useful (even, some would say, vital to the preservation of freedom in the world). Nuclear weapons are arguably the major reason why the second 45 years of the 20th century did not witness the massive devastation of the world wars of the first 45 years. "The immense power of nuclear weapons removed, long ago, any rational basis for a potential adversary believing that a major war could be fought in Europe and won. . . . The value of nuclear weapons in such circumstances lies not in classical concepts of war-fighting or war-winning, nor just in deterring the use of nuclear weapons in an adversary, but in actually preventing war."⁸

Even those who emphasize other aspects of the historical superpower standoff must include nuclear deterrence high on the list of factors. Nuclear deterrence does not ensure peace, but, short of nuclear war, places a limit on the level of violence. In fact, among great powers the nuclear era has been a most peaceful time. Nuclear weapons appear to have ended the terrible era of ever-more-devastating total war and substituted a relatively less-destructive era of limited war. It was largely the United States' nuclear deterrent that prevented the Soviet Union from realizing the expansionist ambitions it proclaimed to be its obligation as the vanguard of world communism.

Nuclear weapons are uniquely effective for deterrence because they are enormously destructive and can be delivered in swift retaliation. No other military capability can duplicate the effectiveness of nuclear deterrence. There have been assertions that advanced, precision-guided, conventional weapons can perform the strategic missions of nuclear weapons, but careful analysis shows this idea to be without merit.⁹ Our nuclear arsenal is *strategically sufficient*: it can destroy the sources of an enemy's economic, political, and military power. Precision conventional weapons cannot. In addition, for effective deterrence, the image of a single aircraft bunker in the cross hairs of a guided bomb is no match for the evocative image of a mushroom cloud. If we pretend that conventional weapons could be strategically sufficient, we allow the credibility of our nuclear deterrent to be damaged.

The need for nuclear deterrence will not disappear. There are still powerful nations in the world which are potential adversaries, both immediate and future. The interests of these other nations will, at times, be in conflict with the interests of the United States. It is inevitable that another great power or a coalition of powers will arise to oppose the hegemony of the United States. Although the Cold War is over, Russia still has the capability to destroy the United States; the strong showing of the nationalists and communists in the

“If we pretend that conventional weapons could be strategically sufficient, we allow the credibility of our nuclear deterrent to be damaged.”

Russian elections, the obvious failure of reforms, the desire of Russia to be recognized as a great power, and replacement of the reformers in the Russian government with officials from the communist era have refocused our concerns on this point. In a few years Japan, a Western European state, or China could pose a strategic threat to our broad security interests; China is rapidly modernizing its arsenal and could soon be a strategic nuclear threat. Since we will be cautious about attacking any nuclear power with conventional forces, it will be difficult to deter even smaller nuclear powers such as North Korea, Iran, or Iraq if our nuclear threat to them is not credible.

Credibility is important for deterrence because the conditions under which the United States would actually use nuclear weapons, and therefore the conditions under which nuclear deterrence even exists, depend on limitations we place on ourselves. Credibility has been one of the most important aspects of nuclear policy from the beginning.¹⁰ For example, the lack of credibility of the US policy of massive retaliation led to the more limited US doctrines that were then developed. The development of warfighting capabilities as a contribution to deterrence was based on the need to demonstrate that there was a likelihood that nuclear weapons would actually be used. In addition, French perceptions of the lack of credibility of the American nuclear guarantee led directly to the *force de frappe*. (Detargeting US and Russian ICBMs would not have been acceptable if these weapons could not be retargeted quickly, because the lack of verifiability would undermine the credibility of the ICBM forces.) Minimizing and stigmatizing our nuclear weapons can create a self-imposed taboo with respect to even nuclear adversaries, thereby delegitimizing deterrence and inviting threats to our interests.

This self-injury to our nuclear deterrence is not the delegitimization of all nuclear weapons that the proponents of nuclear stigma hope for. It is neither reciprocal with our potential enemies nor permanent, even for ourselves.

Credible nuclear deterrence is robust, not delicate. Policies and actions that establish credibility couple with our nuclear arsenal to create the possibility that in a war with the United States an enemy may face a risk of annihilation. A potential enemy need not even be very rational to be deterred from actions that ensure his own destruction. (This is not to argue for belligerence.)

erence; we can keep the threshold for nuclear use high without undermining credibility.) This creates extreme caution in the behavior of other states if they wish to threaten vital US security interests, and it substantially reduces the likelihood of miscalculation.

Extended deterrence has been a cornerstone of both containment and nonproliferation. For example, NATO served to extend the strategic commitment of the United States, including nuclear deterrence, to our European allies. Security alliances also have discouraged some nations from developing their own nuclear capabilities by assuring them of protection under the US nuclear umbrella. A policy intended to stigmatize or minimize nuclear weapons can weaken nonproliferation and destabilize the security situation of our allies. As noted earlier, the lack of US nuclear credibility led to an independent French nuclear force. Japan is another nuclear-capable ally we could place at risk if we allow the credibility of our nuclear deterrence to erode visibly.

Another way in which nuclear deterrence is robust is that nuclear weapons are less sensitive to technical advances by potential enemies, possibly reducing pressure for arms races. Advances in nuclear weapons by a potential adversary do not necessarily decrease the effectiveness of our own. Advances in defenses, such as a ballistic missile defense or improved submarine detection, may require adjustments to our deterrent forces, but since nuclear weapons are weapons of mass destruction, their overall effectiveness does not depend on easily negated incremental advantages. (On the other hand, a minimal stockpile of very few strategic weapons would become vulnerable to advances in defenses.) At present stockpile levels, it is relatively easy for the United States to maintain a secure and effective second-strike capability.

By virtue of their enormous destructive potential, the possession of nuclear weapons creates a quantum increase in power and influence for the United States. Possession creates a threshold of antagonism which no nation can cross. Global awareness of the existence of this threshold allows the United States to exercise influence without the threshold ever being approached. Just as important, the opposite is also true: stigmatizing and minimizing our nuclear weapons can undermine, to some extent, our international status and therefore our ability to influence world events and to protect and promote our interests.

This is important because it matters which states exercise power in the world. (Suppose Nazi Germany had won World War II or the Soviet Union had won the Cold War.) The collapse of the Soviet Union leaves the United States as the only major power whose national identity is defined by a set of universal political and economic values.¹¹ Sustained US power is central to the future of freedom, democracy, open economies, and international order in the world.

Some argue that economic strength alone can confer superpower status because economic powers can use trade and economic policies to promote their economic welfare.¹² However, economic power is only one contributor to a nation's overall power. The highest priorities of the United

States government are to protect our central security interests. Economic power alone cannot guarantee security; in fact, greater economic interests may extend the boundaries of our security interests, thereby increasing our vulnerability to coercion or adding new opportunities for others to try to influence US foreign policy. The greatest contribution of economic power to security is that economic resources allow for the fielding of a formidable military force. This is why there is a great deal of concern over China's economic growth: not primarily because of China's future ability to trade effectively (although this also may be of great concern), but because of its rapid growth in military spending and the enormous resources potentially available for its military. Even states that could not compete economically have been superpowers (e.g., the Soviet Union).

The possession of a robust nuclear arsenal confers real diplomatic advantages on the United States. It is a vital symbol and part of the substance of our world leadership. Diplomacy is always performed against the backdrop of military capability. In addition, nuclear weapons, and the threats they imply, can be used explicitly (although not without risk) to protect US interests.¹³ For example, during the superpower confrontation caused by the 1973 Arab-Israeli war, increased US alert status, including nuclear forces, and hints of "incalculable consequences" probably helped to deter Soviet intervention in Egypt. (Soviet nuclear capabilities also may have helped to motivate the United States to work to prevent the destruction of the encircled Egyptian Third Army.) There has been widespread speculation that allusions to nuclear use may have deterred Iraq from using chemical weapons in the 1990-91 Gulf War. And, the US carefully refrained for several days from ruling out a nuclear strike against a Libyan underground chemical weapons facility to increase the diplomatic pressure to stop construction.

Nuclear weapons make it easier for the United States to cooperate with other nations since they make it difficult for other nations to threaten central US security interests. In the past, it has been very important in international relations to avoid a *relative* gain by a partner in cooperation lest that relative gain translate into a shift in relative military power that threatens one of the partners. This creates a barrier to cooperation in trade, economic policy, arms control, or other activities that result in absolute economic or other gains. Nuclear weapons lower this barrier to cooperation.

On Nuclear Disarmament

Although nuclear stigma is usually presented as pragmatic, and sometimes includes only rhetorical speculation about the eventual elimination of nuclear weapons, underlying disarmament motives often erupt as nonproliferation, democratization, or wishful thinking, which to some extent may be interlinked.¹⁴ The first form is the renewed emphasis on nonproliferation. President Clinton, in his address to the United Nations, proclaimed: "I have

made nonproliferation one of our nation's highest priorities. We intend to weave it more deeply into the fabric of all of our relationships with the world's nations and institutions." A provision of the Non-Proliferation Treaty (NPT) is that the nuclear weapon states will make progress toward nuclear disarmament; at the time, the current Administration appeared anxious to display apparent progress toward disarmament in response to this requirement of the NPT. The fear of proliferation may be an important element in nuclear stigma. For example, this is the reason that one popular recommendation to "reduce nuclear danger" is to end fissile material production. And, in fact, the US Secretary of Energy hailed the end of plutonium production as "progress on the path of nuclear disarmament."¹⁵

In "Phase Out the Bomb," Barry Blechman and Cathleen Fisher express concern that "America's continued reliance on nuclear weapons cripples its efforts to persuade others not to seek nuclear capabilities."¹⁶ They quote General Charles Horner, who stated, "It's kind of hard to say to North Korea, 'You are a terrible people, you're developing a nuclear weapon,' when the United States has thousands of them." (The real message to North Korea should be: "You are acting like terrible people and that's *why* we can't let you develop a nuclear weapon.") As argued above, the benefits of nuclear weapons depend on the characteristics of the weapons themselves and the need for the United States to use force and the threat of force in a world where other nations will always have nuclear weapons. Thus, rhetorical attempts to "delegitimize" US nuclear weapons will fail when confronted with reality, a dangerous fact that will become obvious in the long run.

The second form of disarmament sentiment seems related to the announced US policy of *enlargement*, which seeks to increase security by increasing the number of market-oriented democracies in the world.¹⁷ This is an appeal to the Kantian notion that liberal democracies will not go to war with each other.¹⁸ The stigmatization of nuclear weapons may be implicit here because some also believe that democracies "do not build weapons of mass destruction to use on one another or threaten each other with"¹⁹ or that "the 'modernist' states reject not only the use of weapons of mass destruction, but even the use of military force to settle their disputes."²⁰ Nuclear weapons are a critical problem for this worldview because nuclear weapons are so powerful that even small nations with a few weapons could protect their sovereignty and advance their interests without recourse to the cooperative measures that proponents of democratization assume would become natural. Even in a cooperative world rogue states could not be prevented from becoming nuclear powers without an extremely oppressive, intrusive, and totalitarian international regime, one that could not be maintained even if it could be established. Because it would be much more comfortable to face a nuclear rogue with nuclear weapons than without them, there would be a great deal of pressure for peaceful nations to rearm.

Whether or not a world full of mature democracies would be a peaceful world, a recent statistical analysis suggests that states in transition to democracy become more aggressive and war-prone and do indeed fight wars with other democracies.²¹ This is a good analogy to our concerns about "reducing nuclear danger"; even if a world with zero nuclear weapons would be a safer world, a United States in transition to fewer or zero nuclear weapons is not therefore automatically a safer country.

A third form of disarmament sentiment is merely wishful thinking. McGeorge Bundy, William Crowe, and Sidney Drell introduce their book, *Reducing Nuclear Danger*, with this statement:

From the beginning of the Cold War in 1946 to its end in 1990, the US government would have rejected any offer from the gods to take all nuclear weapons off the table of international affairs. Today such an offer would deserve instant acceptance; it would remove all kinds of risks of catastrophic destruction, and it would leave us quite safe from Russian expansion. We should be free to enjoy two extraordinary strategic advantages: first, as the least threatened of major states and second, as the one state with modern conventional forces of unmatched quality. Unfortunately no one knows how to abolish nuclear weapons, but the dramatic change in what we now need from these weapons makes a great difference in the limits we can accept on the size and use of our nuclear forces, and that difference in turn affects what others can decide.²²

At first glance, the image created of a world without nuclear weapons appears attractive. But since this fantasy cannot exist in reality, a point Bundy et al. readily admit, then it should not be used as any kind of guidance for the difficult choices to be made in US nuclear policy. However, these distinguished authors nonetheless explicitly link their considerations of the differences in US policy required by the end of the Cold War and their wish that nuclear weapons didn't exist.

In the euphoria of greeting a New World, wishful thinking seems widespread. For example, Leslie Gelb, President of the Council on Foreign Relations, recently wrote, "For a long time to come, Russia will be a second-tier country with virtually useless nuclear arms."²³ In fact, Russia's nuclear weapons are no more or less useless than they were during the Cold War. And Blechman and Fisher assert, "If all the world were modernist, nuclear weapons would have absolutely no purpose and could already be safely eliminated."²⁴

My point is certainly not to argue against encouraging nonproliferation and democracy. These favorable policies generally serve the interests of the United States and most of the other nations of the world. But democracy and nonproliferation are not primary means to achieve security. They can contribute to, but cannot be allowed to dominate unquestioned, the true end of US nuclear policy, which is to provide for the security of the United States including addressing the various risks related to nuclear weapons. The world in which all the great or nuclear powers are liberal democracies does not exist

and perhaps never will. It would be unwise to risk the existence of our nation on the fragile notion that democracies will dictate international affairs and, consequently, exist in peaceful union. It is especially unwise to allow wishful thinking to guide policy. Nuclear weapons cannot be disinvented; we will have to live with them, perhaps forever. US nuclear weapons policy should not be constructed upon a mirage of disarmament sentiment.

Conclusions

There are many different kinds of danger associated with nuclear weapons, including the danger that policies which minimize and stigmatize nuclear weapons may exacerbate old threats and introduce new threats to US security. *All* choices involve risk. Stigmatizing all aspects of nuclear weapons may blind us to the extent that we overlook policies that could actually reduce the danger of war or violence to the United States and the rest of the world. This concept therefore interferes with our ability to formulate good policies to deal with national security and with the myriad issues related to nuclear weapons.

Since we absolutely cannot achieve the goal of abolishing both nuclear weapons *and* the knowledge of how to construct them, policies and actions that appear to move in that direction will always fail the test of plausibility. But since these policies and actions would be undertaken in the name of "reducing nuclear danger," they acquire a respectability that they have not earned through critical examination. This is the reason it is necessary to reject the emotional appeal reflected in Les Aspin's assertion in 1992 that, in the new era, "the burden of proof is shifting toward those who want to maintain" policies supporting US nuclear weapons and away from those who advocate "four prescriptions of the left . . . a comprehensive test ban, an end to production of fissile material . . . removal of forward-based tactical weapons, and renunciation of first use."²⁵ An assumption that the formulation of US security policy is biased *a priori* toward a given set of policy recommendations is exactly the problem with nuclear stigma.

The benefits of US nuclear weapons support the argument that the elimination of our nuclear weapons would not be good for the United States or for the world. These benefits include deterrence against attacks on our central security interests, a contribution to the general prevention of war, extended deterrence that protects our allies and discourages proliferation, security against technological surprise, maintenance of our superpower status, and the tangible benefits of nuclear diplomacy.

This is not to say that there are no national security problems associated with US nuclear weapons. A serious discussion that attempts to balance the dangers *and* benefits of nuclear weapons must be undertaken before dramatically altering our security policy. Wishing that nuclear weapons didn't exist will not alter the security needs of the United States or the associated nuclear problems. The United States needs to exercise wise leadership in

formulating its policies and in promoting and protecting its worldwide interests. Policies of minimizing and stigmatizing the sources of our strength will only make it more difficult to lead.

NOTES

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1. For example, Barry M. Blechman and Cathleen S. Fisher, "Phase Out the Bomb," *Foreign Policy*, No. 97 (Winter 1994-95), 79-95; Selig S. Harrison, "Zero Nuclear Weapons. Zero," *The New York Times*, 15 February 1995, p. A15.

2. William J. Perry, US Secretary of Defense, speech to the Henry L. Stimson Center, 20 September 1994.

3. For example, McGeorge Bundy, William J. Crowe, Jr., and Sidney Drell, "Reducing Nuclear Danger," *Foreign Affairs*, 72 (Spring 1993), 140-55; Andrew J. Goodpastor, "Tighter Limits on Nuclear Arms: Issues and Opportunities for a New Era," Occasional Paper Series, The Atlantic Council of the United States, May 1992; Representative Les Aspin, Chairman, House Armed Services Committee, "From Deterrence to Denuking: Dealing with Proliferation in the 1990s," 18 February 1992, Section IV, "Reducing Nuclear Danger in the New Era."

4. This issue is discussed at length in George H. Quester and Victor A. Utgoff, "U.S. Arms Reductions and Nuclear Nonproliferation: The Counterproductive Possibilities," *The Washington Quarterly*, 16 (Winter 1993), 129-40. Also see Michael Mandelbaum, "Lessons of the Next Nuclear War," *Foreign Affairs*, 74 (March-April, 1995), 22-37.

5. Richard L. Wagner, former Assistant to the Secretary of Defense for Atomic Energy, first pointed this out to the author.

6. Quoted by Leonard Spector, "Nuclear Posture Review," NNN Bulletin Board #537, Nuclear Nonproliferation Network News Service, 19-20 April 1994.

7. Blechman and Fisher, p. 83.

8. Malcolm Rifkind, UK Secretary of State for Defense, speech to the House of Commons, 16 November 1993. This is why Rifkind opposes a policy of no first use: "A no-first use declaration would take us out of the realm of war prevention into the realm of war limitation. That is a step that I regard as retrograde and have no wish to take."

9. Robert G. Spulak, Jr., "Strategic Sufficiency and Long-Range Precision Weapons," *Strategic Review*, 22 (Summer 1994), 31-39.

10. Most of the seminal and influential nuclear strategists were very concerned with credibility: see John Baylis and John Garnett, eds., *Makers of Nuclear Strategy* (New York: St. Martin's Press, 1991). In addition, theoretical treatments identify credibility as the central issue in deterrence: for example, Robert Powell, *Nuclear Deterrence Theory: The Search for Credibility* (New York: Cambridge Univ. Press, 1990).

11. See Samuel P. Huntington, "Why International Primacy Matters," *International Security*, 17 (Spring 1993), 68-83.

12. There is an interesting contrast in attempts to eliminate the nuclear source of our superpower status by relying on US economic strength to protect and promote US interests, while at the same time some policymakers and others argue that the United States has been experiencing, or is in danger of, relative economic decline.

13. For example, Barry M. Blechman and Douglas M. Hart, "The Political Utility of Nuclear Weapons," *International Security*, 7 (Summer 1982), 132-56.

14. A good discussion of the overall case against nuclear disarmament is given in Kathleen Bailey, "Why We Have to Keep the Bomb," *The Bulletin of the Atomic Scientists*, 51 (January-February 1995), 30-37.

15. Thomas W. Lippman, "Russia Set to Close 3 Reactors," *The Washington Post*, 17 March 1994, p. 1.

16. Blechman and Fisher, p. 79.

17. Anthony Lake, US National Security Advisor, speech at Johns Hopkins University, 21 September 1993.

18. Whether there is any valid statistical evidence for this is still under debate: for example, David E. Spiro, "The Insignificance of the Liberal Peace," *International Security*, 19 (Fall 1994), 50-86.

19. Larry Diamond, "The Global Imperative: Building a Democratic World Order," *Current History*, 93 (January 1994), 2.

20. Blechman and Fisher, p. 81.

21. Edward D. Mansfield and Jack Snyder, "Democratization and War," *Foreign Affairs*, 74 (May-June 1995), 79-97.

22. McGeorge Bundy, William J. Crowe, Jr., and Sidney Drell, *Reducing Nuclear Danger: The Road Away From the Brink* (New York: Council on Foreign Relations Press, 1993), p. 5.

23. Leslie H. Gelb, "Quelling the Teacup Wars," *Foreign Affairs*, 73 (November-December 1994), 2-6.

24. Blechman and Fisher, p. 86.

25. Aspin, p. 14.

Contemporary Security Challenges in Southeast Asia

DANA R. DILLON

Since the end of the Cold War, defense spending has declined dramatically around the globe—except in Asia. Aggravating the concern over rising Asian arms purchases are the relations of the Association of Southeast Asian Nations (ASEAN) with its neighbors, particularly China. Those relations are undergoing dynamic and perhaps destabilizing changes. Despite China's potential threat to regional stability and the ASEAN countries' individual inability to defend against it, an underlying distrust among ASEAN members inhibits all but rudimentary regional security agreements. Additionally, the countries of Southeast Asia are concerned that escalating arms purchases could lead to a regional arms race.

The security environment for the countries of ASEAN has changed dramatically in the past two decades, yet their security focus has changed only in degree, generally moving from counterinsurgency to protection of political regimes. Despite their fears of external military powers, ASEAN governments often purchase weapons based on political considerations rather than military necessity. This article examines the development of the ASEAN nations' security policies to show how their experiences and their contemporary situations drive growing arms purchases yet leave member countries unprepared for post-Cold War security challenges.

Cold War Southeast Asia

With the exception of Thailand, the countries of Southeast Asia gained their independence after World War II. Initially, the countries of the region were economically and politically weak, and the legitimacy of their governments was very much in question. Southeast Asian states were beleaguered by ethnic divisions and communist insurgencies. During the period 1963-1966 this problem was aggravated by Indonesia's President Sukarno, who waged an irredentist war called *Konfrontasi* against Malaysia, Brunei, and Singapore. The danger of internally weak countries engaging in international

adventurism was prominently demonstrated as Sukarno was toppled from the presidency during a bloody power struggle between Indonesia's army and the communist party.

Realizing the wasteful and self-defeating characteristics of regional strife, Thailand, Malaysia, Singapore, Philippines, and Indonesia (led by General Suharto) met in 1967 to form ASEAN. Configured ostensibly to promote economic, social, and cultural cooperation, ASEAN's greatest achievement is institutionalizing a reconciliation process among member countries.¹ This process did not resolve all disagreements, but it gave the countries a forum in which to address, or ignore, the issues peacefully. Another ASEAN benefit to its members was and remains the aura of international credibility afforded the organization. Throughout the Cold War, ASEAN was the megaphone through which its members spoke to the superpowers. This new dimension in international security is explained by Michael Leifer:

The more that regional and external states brought ASEAN within the compass of their calculations, the more its member governments responded by conducting themselves as if they were part of the diplomatic community. The attendant enhancement of regional credentials, reinforced by an evolving network of dialogue partnerships with industrialized Western states, worked to the political advantage of the Association. Although in no sense a security manager in the manner of a dominant regional power, its collective international voice began to count for something on regional issues.²

Strengthened by diplomatic credibility, ASEAN capitals were able to prevent superpower competition from threatening their external or internal security.

Restraining communist superpower meddling within the security environment of ASEAN countries and receiving direct but limited Western support yielded two advantages. First, ASEAN armed forces were freed from the burden of external defense. This permitted defense planners to concentrate their energies and limited resources on strategies to promote internal stability. Second, various communist and ethnic insurgencies in those countries were without outside patrons. Communist insurgencies in Malaysia, Indonesia, Brunei, Thailand, and the Philippines mustered no effective support from either China or the former Soviet Union. Without external sources of supply, the scope of the conflicts was restricted to internal resources. The guerrillas could not obtain externally provided hardware to escalate the *military* side of the conflict beyond the abilities of the governments to resist unaided.

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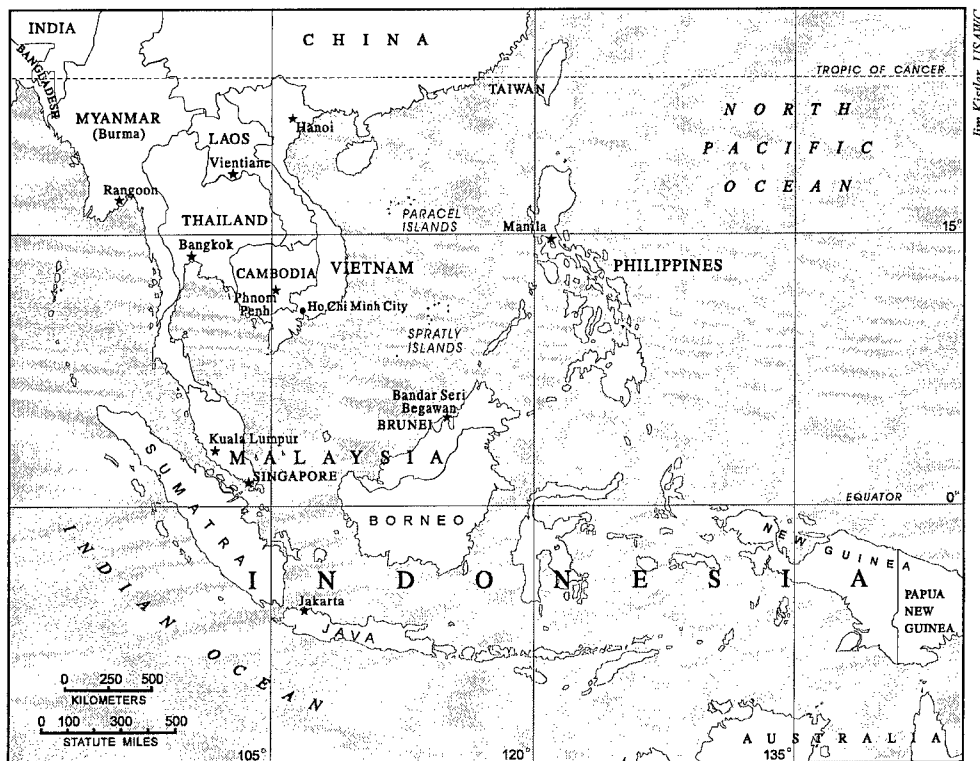
Although ASEAN diplomacy lifted heavy burdens from the military, it could not strengthen the weak Southeast Asian governments. Like all insurgents, the guerrillas in Southeast Asia benefited from the economic poverty and social injustices found throughout the region. Consequently, rather than focus solely on the military struggle, the pursuit of internal stability emphasized the ability of member states to marshal national resources for economic and social development. This trend is exemplified by the Indonesian concept of "national resilience," which involves mobilizing the country's assets in the political, economic, and security fields.³ The struggle to attain "national resilience" shaped the mission and organization of Southeast Asia's armed forces until the end of the Cold War.

As a result of the focus on internal stability, ASEAN militaries are organized quite differently from conventional, externally oriented forces. The first difference is in their goals, which encompass economic and social issues. Also, the army is generally the largest and dominant service, with the bulk of its units stationed in small garrisons scattered throughout the country. Large army units generally are found only close to a capital or in regions with significant insurgent populations. Another difference is the mission of national police forces, which play salient roles in internal security. Finally, defense spending comprises a small portion of the national budget. Although the security strategies of all the ASEAN countries contain these features, each nation chooses different means to attain "national resilience."

Military Posture

Since Indonesia was the originator of the concept, Indonesia's strategy for "national resilience" is the purest demonstration of the economic, social, and military mobilization it entails, and thus will be addressed here in some detail. The mission of the Armed Forces of the Republic of Indonesia (Angkatan Bersenjata Republik Indonesia, or ABRI) is to maintain social and political stability. ABRI accomplishes this mission through the doctrine of *dwifungsi* or "dual function." The premise of dual function is that the military has two roles in society: the defense of national interests and social-political development. This broad charter justifies assigning military officers to posts in all governmental departments as well as to seats in the legislature.⁴ Thus, *dwifungsi* permits the military to strengthen government agencies by backing them with the authority of its national defense role and the power of armed might.

ABRI consists of four services: the army, navy, air force, and police. Among the services, the army is dominant. Two thirds of the army's 217,000 personnel are assigned to ten regional commands called Kodams, which are subdivided into successively smaller administrative units—paralleling the civilian structure—all the way down to village level, where a noncommissioned officer is assigned to every village in the country. These territorial forces are the embodiment of "national resilience." The advantage of this dispersion is that



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Figure 1. Southeast Asia.

the power and authority of the state are brought to every Indonesian. The trade-off, however, is that the dispersion of forces in this manner renders these units militarily impotent. In fact, these territorial forces do not conduct operations or training in greater than battalion strength.⁵ ABRI doctrine recognizes the tactical ineffectiveness of their territorial units. To retain some conventional military strength, the army created the Army Strategic Reserve Command (Kostrad), which is its only organization capable of conducting conventional operations. It consists of two divisions with about 40,000 army personnel.⁶

Indonesia's National Police—with 180,000 personnel—is second only to the army in size. Its mission is public order, but the force also is active in social and economic development. Although most Indonesian National Police organizations conduct routine police functions, the National Police also possess a special unit known as the Mobile Brigade. This 12,000-man paramilitary unit is organized as an elite corps with the mission of domestic security and defense operations.⁷

The navy and air force are the most neglected of the services. Each branch contains only a few thousand personnel, with a mixture of rusting Soviet and Western equipment. The common mission of the navy and air force is to support the army, and until the end of the Cold War these services received only a meager portion of ABRI's limited budget.⁸

Although Indonesia's armed forces undoubtedly are the most powerful element in its society, ABRI accepts the foundation of the government's internal security strategy—that economic and political development are indispensable to internal stability. For the government to pay for economic development, the military endures defense budgets that are significantly lower than those of other countries of its size. Indonesia, the fourth most populous country in the world, ranked 25th in gross national product (GNP) in 1994, but was 116th in per capita military expenditures and 119th in military expenditures as a percentage of GNP. The success of this strategy has been remarkable. For 30 years, Indonesia has enjoyed domestic stability and an economic growth rate that averaged almost eight percent annually.⁹

The missions and activities of the armed forces of the other ASEAN members are strikingly similar. Like Indonesia's ABRI, the Royal Thai Armed Forces (RTAF) are deeply involved in the political and economic development of the country. In Thailand, the military has maintained itself in the center of national political life through a series of coups and military governments. Despite the apparent chaotic atmosphere of a country racked by violent government changes, the Thai military has been able to maintain order and stability.¹⁰ Although military coups are by nature self-serving, the RTAF's deep integration into Thai society encourages coup leaders to consider political stability and economic development while in control of the government. During periods of military rule, Bangkok's defense budget never exceeded 4.3 percent of Thailand's GNP.¹¹

Malaysia's security policy may be the most misunderstood in Southeast Asia. The separation between civilian and military affairs is usually characterized as "sharply drawn and strictly adhered to."¹² However, both the mission and organization of the armed forces are thoroughly political. Although the Malaysian Armed Forces (MAF) are a Malaysian state asset, their mission is not only to defend the country but also to protect the special status of the ethnic Malay majority from infringement by the minority non-Malay citizens.¹³

The most prominent internal threat is not communism but the ethnic divisions in Malaysia's society. Ethnic Malays are a bare majority (56 percent) of the racially diverse population. But Malaysia's constitution and laws protect the prominent status of Malays, their language, religion, culture, and symbolic leadership in society. Ethnic Malays constitute more than 75 percent of the armed forces and traditionally hold the most important command positions. The loyalty of this Malay-dominated institution to protecting Malay perquisites guaranteed by the constitution has never been in doubt. Therefore, the military as an institution is subordinate to civilian political leaders, but its organization and mission are inherently part of the domestic politics of the country.¹⁴

Until 1965, the Armed Forces of the Philippines (AFP) were unique in Southeast Asia. Although the Philippine military focused on internal security, it still developed along professional lines and generally avoided political entangle-

ments. However, after the 1965 election of Ferdinand Marcos, the AFP fell into the familiar patterns of Southeast Asian security politics. Military involvement in all aspects of Philippine society accelerated after Marcos declared martial law in 1972. During the martial law period, the army became directly involved in the criminal justice system, expanded civil action operations, and took control of large portions of the economy.¹⁵ The AFP did not enjoy the same success with these methods as its ASEAN partners. In fact, the communist guerrilla insurgency, which had virtually ceased to exist following the defeat of the Hukbalahap rebellion in 1953, reemerged during the Marcos era as the New People's Army (NPA). The NPA expanded throughout the martial law period despite (or because of) AFP efforts. Not until President Ramos was elected in 1992 did the government demonstrate any appreciable success against the communist insurgency.

Singapore, a small island populated by ethnic Chinese and surrounded by much larger countries populated by Sinophobic ethnic Malays, in many ways is the exception that proves the rule. In contrast to its neighbors, Singapore developed an externally focused military from the outset of its independence. It attempted to join the Malaysian Federation in the early 1960s but was forcefully expelled in 1965 at the height of Indonesia's *Konfrontasi* campaign to absorb Malaysia, Brunei, and Singapore. *Konfrontasi* concluded in 1965-66 with significant social unrest throughout Indonesia, which included repeated anti-Chinese violence in a number of urban areas. Malaysia followed with its own anti-Chinese rioting in 1969. Frightened by these events, Singapore set about turning its tiny post-colonial military into the most competent armed force in Southeast Asia.

Although Singapore's strategic situation appears to contrast sharply with its neighbors, the country is also plagued by internal security fears and ethnic divisions (75 percent Chinese, 15 percent Malay, and ten percent Indian and other). The government's solution to these issues, similar to the approaches of other Southeast Asian states, is a security policy based on a concept known as total defense, which has five components: psychological, social, economic, civil, and military.¹⁶ The purpose of the policy is to involve all citizens in the nation-building process, akin to Indonesia's idea of national resilience. To support its total defense policy, Singapore has concluded that the most economical means for a small country to build an effective military and co-opt all its citizens into nation-building is through universal national service for all Singaporean men. As a result of its need to include all citizens in defense, Singapore's army is the largest of the three services. The air force and navy are sophisticated and balanced, but technical services simply cannot absorb large numbers of people as can a citizen army. However, the similarities in security policy discussed here should not disguise the fact that Singapore's ground forces are considerably more competent tactically than those of its neighbors.

Singapore's use of its police force for internal security operations is often overlooked. The most recent Singapore country study published by the

US Army only indirectly mentions the Internal Security Division (ISD) of the Singapore Police Force.¹⁷ Yet Singapore's Internal Security Act (ISA), intended to prevent "any act which undermines the security of Singapore," grants vast authority to the government; the police have never been shy about using that power. The ISD's definition of what might be prejudicial to Singapore's security is broad enough to intimidate any potential political opposition and "to produce a marked avoidance of political issues among the general population."¹⁸

In sum, the defense policies of the ASEAN states remained remarkably constant throughout the Cold War. Vietnam's invasion of Cambodia late in 1978 sparked a dramatic but temporary rise in defense spending, newer military equipment purchases, and general discussion of the need to develop external defense capabilities. However, internal security remained the supreme function of the armed forces. By 1981, the fear of further Vietnamese expansion declined and defense budgets descended with it.¹⁹

ASEAN's consistent security policies produced success at home and abroad. Communist insurgencies failed throughout most of Southeast Asia and are waning in the Philippines and Cambodia; those victories bestowed an aura of credibility on ASEAN governments unknown since precolonial days. Additionally, internal stability and the growing competence of government institutions facilitated spectacular economic growth, which further enhanced the credibility of the governments. Economically and politically, ASEAN has never been stronger. Now, however, ASEAN members face a new security environment that directly challenges the foundations of their Cold War success.

Post-Cold War Challenges

The bedrock of ASEAN external security during the Cold War was the US regional presence. The collapse of the Soviet Union reduced the apparent need for Washington to maintain a large military presence in Southeast Asia. Additionally, US and USSR competition for influence with ASEAN governments also disappeared. Washington now engages its Southeast Asian counterparts in negotiations concerning human rights and trade with little consideration of the security repercussions, which puts the ASEAN states in a dilemma. They are militarily unprepared to defend their territorial integrity or national interests, so they need and want a US presence. At the same time, the US policy emphasis on human rights is the single largest challenge to one-party authoritarian rule. With the decline of the insurgent threat in most Southeast Asian countries, the security focus is changing from internal security against guerrilla armies to an emphasis on the political security of authoritarian regimes. Many ASEAN political leaders firmly believe that their "strong state" system is responsible for peace, stability, and rapid economic growth in the region.²⁰ These same leaders fear that Washington might establish human rights reform as a condition for trade, investment, or military assistance.²¹

Another condition that has changed with the end of the Cold War is the challenge posed by China. Early in the Cold War, Southeast Asian military and political leaders feared Chinese covert aid to the large communist insurgencies in their countries, even though it was not possible at that time for China to challenge directly their sovereignty or national interests. But since the mid-1980s China has asserted itself strongly in the region; a 1992 law claimed the entire South China Sea as an inland sea and further declared China's right to evict foreign occupants from its maritime territory. This act extended China's sea frontiers about a thousand miles and made neighbors of each of the ASEAN countries, whether they wanted to be neighbors or not. China's acquisitiveness, growing military capability, and penchant for unilateral seizures of islands and reefs have provoked considerable consternation in ASEAN capitals.

The last, but not least, security threat to ASEAN is the members themselves. ASEAN was not formed to settle disputes but to agree to avoid military means to resolve them. This agreement was easily reached, since both military forces and the capability to project them were minimal in most member states. Rapid economic growth, which was the major benefit of and contributor to peace and stability in the region, had the unintended consequence of facilitating higher defense budgets. Although defense expenditures generally have not grown as a percentage of gross domestic product, the total resources available to the armed forces have increased enormously in line with overall economic growth.²² Consequently every new arms purchase by an ASEAN member raises the specter of a regional arms race, aggravates the stresses within ASEAN, and tends to inhibit substantive military cooperation.

From Internal Security to Regime Survival

The fear that human rights violations can result in trade or security penalties reflects the changing mission of the ASEAN security forces from counterinsurgency to regime protection. Individually, the ASEAN countries are pursuing two means to defend the prerogatives of their regimes. The first is to develop a philosophical formula for countering the human rights issue, popularly referred to as "Asian Values." The second is to strengthen the military, the principal government asset which directly contributes to security.

"Asian Values" is an artificial construct that presumes to offer an Asian alternative to Western liberal thinking; it is, in fact, a rationalization for single-party, authoritarian rule. This doctrine provides the justification for some Asian governments to block popular participation in politics and consequently preserves the authority of single-party regimes. All ASEAN governments have controlled the domestic press—including the Philippines during Marcos's tenure—but now the controls are extending to the foreign press and to foreigners in an attempt to stem the tide of Western ideas. Singapore is at the cutting edge in the use of Asian Values as an internal security tool. In 1986, Singapore amended

***“Aggravating the concern over rising Asian
arms purchases are the relations of the
Association of Southeast Asian Nations
with its neighbors, particularly China.”***

its Newspaper and Printing Press Act to permit the government to restrict or ban any foreign journal it deems is “engaging in domestic politics.”²³ The restrictions apply not only to foreign newspapers but also to American citizens. Consider the example of Professor Christopher Lingle, who wrote an academic response to a smug, anti-Western attack in the *International Herald Tribune* while he was living in Singapore.²⁴ As a result, Professor Lingle’s office was raided by police, and he fled the country to avoid prosecution for contempt of court and a criminal libel suit brought by Senior Minister Lee Kwan Yew. More recently, authorities have banned satellite dishes and circulation of several newspapers and are seeking ways to control traffic on the Internet, all in the interest of excluding Western thought and values.

The philosophy of Asian Values flows from Asian heritage; in practice, it is little different from the community-first rationalizations used by East European communist governments to restrict individual rights before 1989. Although the “Asia is different” reasoning may deflect or dilute some international criticism, the real problem is at home. The grip of one-party democracy in Asia is already weakening in Japan, Korea, and Taiwan, while it is broken in the Philippines and Thailand. Thousands of Southeast Asian young people study abroad each year, particularly in the United States. Additionally, the economies are oriented on external trade, requiring businessmen, government leaders, bureaucrats, and military personnel to travel and live overseas. Even if Senior Minister Lee Kwan Yew were able to isolate Singapore completely, the island country’s need for external trade and higher education would tend to undermine his efforts. Signs of the growing distance between the government and the governed are already visible in the city-state, where the majority of Singapore citizens are alienated from their political institutions.²⁵

The Indonesian military is taking the second and more direct precaution toward preserving the current regime by strengthening the capabilities of its army to control internal disturbances. This security focus is reflected in organizational changes in the army. Despite the ever-increasing size of the defense budget and China’s confrontational attitude in the South China Sea, Kostrad—Indonesia’s major tactical organization—is not improving its force

projection capability. Rather, the Kodams—the territorial commands which control 70 percent of Indonesia's armed forces and are the principal instrument of internal control—have begun establishing brigade-level headquarters to increase command and control capability between each Kodam headquarters and its subordinate territorial battalions.²⁶

No government in Southeast Asia is reducing its spending on the military. This persistent Asian anomaly coupled with the stout defense of Asian Values suggests a continuing political insecurity. The flaw in these methods was clearly demonstrated in Thailand and the Philippines, where political rationalizations and direct military intervention failed to protect unpopular political leaders. The tendency of Southeast Asian governments, as in Cold War Eastern Europe, to treat their increasingly middle-class and better educated citizens as ignorant children unable to make informed decisions about their political future will contribute to greater political instability.

Enter the Dragon

China, without a regional peer, poses the largest and most determined military threat to the countries of Southeast Asia. When China's Parliament passed into law the act claiming the South China Sea, it was not an empty boast. Since its debacle in 1979 against Vietnam, the People's Liberation Army (PLA) has invested heavily to acquire conventional military capabilities. The navy and air force benefited disproportionately more than the army; the efficacy of that policy was demonstrated in 1988 when the PLA navy sank three Vietnamese ships in the Spratly Islands, 400 kilometers from Vietnam but 1500 kilometers from China. The PLA navy and air force continue to expand and improve their force projection capability, including purchases of submarines and advanced military aircraft from Russia and elsewhere. Also, China has decided to build two aircraft carriers between 2005 and 2020, significantly increasing its future force projection capability.²⁷

Before February 1995, China focused its ambitions in the South China Sea exclusively on Vietnam. However, with the occupation of Mischief Reef only 130 miles from the Philippines, Beijing signaled its intention to enforce its territorial claim throughout the contested area. Like deer caught in the headlights of an oncoming truck, the ASEAN countries seem frozen by their own fears and inertia in the face of China's initiatives. On the surface, ASEAN's diplomatic policy of engaging China in multilateral fora—such as the ASEAN Regional Forum and Indonesia's multilateral workshops on conflict management—appear sound. Malaysia often and loudly declares that China can be successfully engaged in cooperative dialogue. Malaysian Prime Minister Mahatir urged that “China should be viewed as a country with enormous opportunities rather than perceived as a threat.”²⁸ Unfortunately, this policy is based on two shaky assumptions: that China considers the countries of Southeast Asia as sovereign nations equal to the Middle Kingdom,

and that dialogue serves a purpose other than furthering Beijing's interests. China, which steadfastly refuses to negotiate the sovereignty issue on any terms but its own, also practices a policy of keeping the situation ambiguous, possibly until the PLA forces are capable of taking and holding what China believes is rightfully its own. ASEAN's traditional methods of resolving disputes—diplomatic measures, informal dialogue, and efforts to build a consensus—fit quite well into this view of Beijing's strategy.

The ASEAN Regional Forum (ARF) was founded to address regional security issues. But ASEAN's need for consensus reduces all discussion and agreement to the lowest common denominator. Consequently, no ASEAN agreement will punish or in any way directly censure any of its members. ARF took no significant steps to address the Philippine grievance against China other than a meekly worded request that all parties refrain from the use of force. China, which is a member of the ASEAN Regional Forum, was not forced to change its actions in any way and still occupies Mischief Reef. It is hard to see how this forum could evolve into a regional alliance.

Arms "Rush"

China might not be so indifferent to Southeast Asian sovereignty if the ASEAN countries possessed a credible military deterrent. Obviously, China's military is large enough to overpower any individual or collective ASEAN armed force. However, Southeast Asian countries might be able to build a sufficiently credible defense to deter Chinese military action. Unfortunately, except for Singapore, the billions of dollars spent by ASEAN to purchase sophisticated weaponry has not translated into competent military organizations.

- Despite the rush to buy sophisticated weapons, regional governments are still obsessed with internal security or political survival and will not commit themselves to the military reforms necessary to focus their forces on defense against external threats.

- Southeast Asian governments are exploiting the vastly increased revenue available to them for arms acquisitions. However, civilian government leaders use political criteria to make equipment purchases. Big-ticket items, such as ships and airplanes, are the currency of international security prestige, but they do not necessarily represent an upgrade in military capability.

- This disorganized, inefficient, and uncoordinated charge to acquire modern military equipment is not an arms race to counter an external threat but an arms rush to possess the newest weapons.

From 1985 to 1993, Malaysia and Singapore spent roughly the same amount of money on their respective militaries (Singapore spent \$12 billion; and Malaysia, \$12.5 billion).²⁹ Yet in all respects, Singapore's military is far more capable than Malaysia's armed forces. Singapore's equipment, personnel, training, and overall readiness are considered the best in Southeast Asia. The MAF,

on the other hand, still has shortfalls in operational efficiency, readiness, and sustainability. Furthermore, the educational standards of Malaysia's military personnel are inadequate to operate and maintain modern, high-tech equipment.³⁰

Malaysia and Indonesia instituted force modernization plans in 1979 that were subsumed by politics; the military's desires were overridden by political decisions for many major purchases.³¹ According to a former Defense and Army Attaché at the American Embassy in Malaysia, these problems can be traced to two sources.

The first is a manpower problem, related directly to Malaysia's consistent and adamant policy that Malays form the bulk of their armed forces. The MAF remains an all-volunteer military, despite the fact that even among Malays, military service is no longer as attractive as employment in the civilian sector. The MAF has taken some measures to make a military career more attractive, but the obvious solution of increasing the recruit pool by accessing more non-Malays is ignored. The only disqualification of these non-Malay recruits is their race and consequent perceived political unreliability.

The second problem is the process of weapon acquisition. In most competent military organizations, weapon purchases are made based on the recommendations of the military services, predicated on an evaluation of the national defense mission and available resources. In Malaysia, however, weapon purchases are made after consultations between the finance minister and the prime minister. Although the opinions of the military are voiced through the minister of defense, they are frequently overridden by the political players. Consequently, expensive high-tech weapons are purchased according to political criteria instead of the needs of soldiers, sailors, and airmen expected to operate and maintain them.³²

Consider, for example, Malaysia's aircraft purchases. To replace one aircraft, the A-4, Kuala Lumpur has purchased three: the MiG-29, the F/A-18, and the Hawk-200. As variety is added to any fleet of equipment, training and logistical problems expand. This situation is aggravated in Malaysia's case because these aircraft come from three different countries, with different standards of logistics, training, and language. Further exacerbating the problem is the low number of each aircraft purchased, which makes buying spare parts and services relatively more expensive and retention of an adequate number of qualified crews considerably more difficult. The consequence of these problems will be low availability of combat aircraft well into the future.

Indonesia mirrors Malaysia's problems. Although the military plays an active role in government and retains seats in Indonesia's legislature, it does not control weapon purchases. Procuring military hardware is the function of Dr. Jusuf Habibie, Jakarta's Minister of Research and Technology and longtime friend of President Suharto. Minister Habibie is deeply resented by ABRI officers because he buys weapons without regard for ABRI's defense planning or force structure. The most public abuse of his authority was the 39 former

East German vessels Habibie purchased three years ago. The navy considered the vessels inappropriate for Indonesia's needs, and the ensuing argument sparked a struggle in the cabinet for control of weapon procurement, which eventually resulted in the closure of three Indonesian publications for reporting the altercation.³³ Habibie, meanwhile, remains in control of military equipment purchases.

ASEAN Discord

Mistrust and mutual suspicions magnify the problems described above. The diplomatic success of ASEAN does not extend to issue resolution. The member countries have agreed only that armed conflict interferes in their internal stability and economic progress. Consequently many ethnic and territorial disputes, some more than 30 years old, are still unresolved and block substantive multilateral defense agreements. Thailand's relationship with Vietnam and Singapore's distrust of Indonesia and Malaysia amply illustrate this situation.

The historic rivalry between Thailand and Vietnam will be most evident in ASEAN's policy toward China. Many analysts have seen Vietnam's accession to ASEAN as a move to form an anti-Chinese club, but Thailand historically has had a friendly relationship with China. Additionally, Bangkok is not among the ASEAN claimants to the South China Sea and continues to develop its security relationship with China through the purchase of military arms and equipment. If Bangkok uses its relationship with China to offset Vietnam's weight in ASEAN, its attitude toward Vietnam could be the most important factor in limiting Hanoi's full integration in ASEAN and in hindering the development of multilateral security relationships among its members.

In insular Southeast Asia the principal source of friction is the historical animosity between Malaysia and Singapore. Singapore has been portrayed as "a Chinese nut in a Malay nutcracker,"³⁴ but this metaphor belies the actual situation. The Singapore Armed Forces (SAF) are specifically designed, equipped, and trained to conduct military operations on the Malay peninsula. Should widespread internal instability in Indonesia or Malaysia result in violence against ethnic Chinese, threaten Singapore directly or indirectly, or threaten the island state's extensive economic investment in those countries, the SAF is clearly capable of protecting Singapore's interests however it chooses to define them.³⁵ A Singaporean invasion of any ASEAN country would most likely result in the complete collapse of ASEAN. In fact, the possible repercussions are so devastating that one observer has called Singapore's strategy "a sort of regional 'doomsday machine.'"³⁶

Conclusion

Southeast Asian security policy today is guided by the inertia of the past 30 years. Single-party governments do not want to surrender the power and authority that have accrued as a consequence of their economic and

security success. Any attempt to guide their populations in a transition from subjects to citizens will be fraught with danger. Leaders of Indonesia, Malaysia, Brunei, Singapore, or Vietnam have to look no further than the 1986 “people power” revolution in the Philippines, or the harsh sentences meted out to South Korea’s former authoritarian leaders, to see the potential for humiliation at the hands of politically aware citizens. The threat of China is not ignored—it is feared; but a decision to use any measure other than diplomacy toward that nation is beyond the capacity of the collective ASEAN membership.

Southeast Asia is experiencing a considerable increase in defense spending, but the fundamental rationale behind regional security policies has not changed. Unfortunately, the regional security environment *has* undergone considerable change. In response, the governments of each country have made cosmetic changes to their security policies, such as purchasing advanced military hardware, creating a philosophical construct that justifies authoritarian rule, and opening a dialogue with China to try to resolve the South China Sea situation. These individual measures may be necessary, but they are assuredly not sufficient to prevent an eventual unstable environment in the region.

The politically conservative yet militarily inappropriate arms rush has not brought greater security for any of the ASEAN countries. The most likely outcome of any collision between those countries and China would be a complete turnover in ASEAN member regimes. ASEAN’s diplomatic efforts and determination to seek consensus over confrontation will give China sufficient time to acquire overwhelming firepower and force projection capability. Bereft of substantive alliances, multilateral defense agreements, or even a credible unilateral deterrent, ASEAN governments may eventually face a humiliating compromise of their legitimate national interests and infringement on their sovereignty. China will continue to test and push the ASEAN governments in the South China Sea.

At home, government platitudes about “Asian Values” will no longer reassure politically disenfranchised populations, which accepted authoritarian governments with the assurance of peace and stability. Although it is impossible to predict in what form or how peacefully regime transitions will take place, it is difficult to imagine any government surviving after failing to provide security from external foes.

On the positive side, Southeast Asia’s arms rush is sustained by substantive economic and industrial growth. In contrast to the oil-based economies of Middle Eastern arms purchasers, the underlying structural development in Southeast Asia, which permitted the brisk economic growth, could also support sophisticated military organizations. Should ASEAN governments choose to move from a policy of regime security to one of national defense, they clearly have the capability to develop respectable means of military deterrence.

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Army Doctrine and Modern War: Notes Toward a New Edition of FM 100-5

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“Contemporary operational art . . . faces an array of new problems. In this area much still remains unexplored and unresolved. Colossal changes in technology, armaments, and combat orders, which are reflected in the evolution of tactics, are still far from being satisfactorily understood in the theoretical sense on the scale of . . . the armed front as a whole.”

—G. S. Isserson, 1932¹

If the United States Army went to war tomorrow against a determined, technologically competent foe and based its operations on the doctrine outlined in Field Manual 100-5, *Operations*, 1993,² the result would be at best a bloody victory, at worst a bloodier defeat. Army doctrine has become confused. Although it is clear that information technology has the potential to revolutionize many aspects of warfare, few are prepared to predict the outcomes of that revolution. And although information-induced changes have already begun, even the US Army must still fight using industrial age materiel and techniques.

AirLand Battle doctrine, epitomized by FM 100-5/1986, was and still is a very good doctrine for industrial age warfare. Had subsequent editions of FM 100-5 retained it and improved on it, the US Army might now have a sound basis for reviewing its core operational doctrine. Unfortunately, AirLand Battle became one of the casualties of the end of the Cold War; FM 100-5/1993 eliminated it in favor of a generalized doctrine which is antithetical to the key elements of AirLand Battle. The Army's most forward-looking doctrinal piece, TRADOC Pamphlet 525-5, has subsequently consigned AirLand Battle to the dustbin of history along with other legacies of the industrial age.

The scope and meaning of the information revolution for the Army have not yet become clear. We are still in the industrial age, as plans for Force XXI

readily acknowledge. And even in the absence of a determined and technologically sophisticated foe, the goals of our doctrine should be the same as they are now: to win quickly, decisively, and at the least possible cost. If we are in fact facing a period of transition between 20th-century warfare and some as-yet-undetermined future form of war, it behooves us to make AirLand Battle doctrine our basis for understanding the future. That doctrine, suitably modified, can serve us until the full array of information technology—upon which rests current speculation of radical change in warfare—has been tested, acquired, and integrated into our fleets of equipment. That doctrine, or one very similar to it, can then serve as the basis for our information age doctrine. For the immediate future we need to help AirLand Battle doctrine become all it can possibly be.

Conceptual Dissonance

It has become fashionable to profess that the current fascination with information technology will result in a manner of war so dominated by high-tech weaponry and so different from that to which we are accustomed that our current modes of thinking about warfare will become irrelevant. Intelligent observers have pointed out that even in the current epoch the ability to use strategic weapon systems to attain tactical goals, and tactical operations to attain strategic goals, is blurring the levels of war as we are used to thinking about them.³ At the same time, Force XXI documents include wholly new categories and concepts of war—particularly information war and spectrum supremacy—implying that future war will bear little or no relation to industrial age warfare.⁴ Yet there is every reason to believe that fundamental continuities in warfare will not be changing at the rate at which we expect our new technologies to change the characteristics of conflict.

Previous radical changes in the ways and means of warfare, such as those induced by the gunpowder revolution and the industrial revolution, did not render all previous understandings of war irrelevant. They revolutionized time-space relationships on the battlefield, completely redefined tactical formations and drills, and increased firepower by orders of magnitude, but important continuities remained. Commanders still needed to mass their forces—understanding “mass” as the concentration of overwhelming force at the decisive point and time—to defeat their enemies, and they still needed to win as quickly and decisively as possible at the least cost. To do this, they still needed to maneuver, supply, command, staff, and provide intelligence to their forces. These aspects of warfare were not evolving at rates comparable to the dominant change or to each other.

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The technology which brought about the gunpowder revolution, for example, although it had important implications for maneuver, supply, command, and staffing, did not in itself provide the solutions for the problems it created, and did not affect intelligence gathering or dissemination at all. In the same way, it seems certain that an information revolution in our own time will neither happen all at once, affecting every aspect of warfare simultaneously, nor affect all aspects in comparable degrees, nor render irrelevant all doctrine and ways of thinking about war that preceded it. It will be necessary, in other words, continually to change and perfect a doctrine, rather than seek to produce all at once an "information age warfare" doctrine for which there is only an incomplete "information age" army.

A large part of the problem is that the US Army recognizes (judging from Force XXI) only two types of doctrine: prescriptive and conceptual. AirLand Battle doctrine, seen as prescriptive, was designed to meet a particular threat in a particular theater. Hence it could be declared outdated because the threat to which it owed its existence had passed. Conventional wisdom—euphoric and largely misguided—similarly declared that because Europe would not likely be the scene of future American conflicts, we could create a doctrine more suited to undefined opponents in undiscovered regions. Force XXI and FM 100-5/1993, therefore, claim to be more conceptual than prescriptive and to rely on the excellent leaders of America's forces to "fill in the gaps."⁵

This view of doctrine is too simple: doctrine can be conceptual without being devoid of content, and it can be prescriptive without being either too specific or too binding. The real problem is that American doctrine has never recognized that "prescriptions" can arise not from particular threats and regional scenarios, but simply from the constant objectives of the state and the nature of war at a given time. This problem is especially serious for American doctrine today with respect to the operational art, which has been the most important determinant of victory throughout the industrial age, and bids fair to remain so for many years to come.

Current American doctrine does not distinguish between the operational level of war and the operational art, yet there is an important difference. The operational level of war is simply, as American doctrine describes it, the level between strategy and tactics which combines tactical successes into campaigns that achieve strategic victory. The operational art is something else again. It is the determined search for ways to achieve dominating maneuver—a manner of fighting using high-speed maneuver and decisive firepower together to disorganize and confuse the enemy so that he can be defeated psychologically even before his forces are destroyed physically.⁶ Operational art, in other words, has a content.

In a given period of warfare, under given conditions of war, operational art contains general suggestions for how to achieve dominating maneuver. By defining operational art as merely the operational level of war,

American doctrine eliminates that content altogether and provides little guidance to the operational commander about how best to conduct operations so as to win decisively, quickly, and at the lowest cost. American doctrine must take its starting point not from potential technological capabilities, as Force XXI does, nor from a simple consideration of possible missions the army might have to perform, as FM 100-5/1993 did, but instead from the serious consideration of this question: given the current nature of warfare, how can American armies best achieve the objective of winning quickly and decisively and at the lowest cost in lives and money?

AirLand Battle doctrine was the closest America has yet come to a coherent doctrine which answers that fundamental question, even though the doctrine did not specifically ask it or set out to answer it. The reason for that success was, in part, the fact that AirLand Battle doctrine had its roots in Soviet operational doctrine, a doctrine which did explicitly pose and answer that question. As we shall see, however, FM 100-5/1993 has taken American doctrine down a wrong path. The rest of this article examines AirLand Battle and its source, Soviet operational art, with a view to restoring and improving the legitimacy of the concept of AirLand Battle. Doing so would produce a doctrine capable of taking us well into the era of information warfare and, by constantly adjusting to changing circumstances, seeing us safely through it.

The Development of Soviet Operational Art: Deep Battle

Soviet operational doctrine came into being in the 1920s as a tentative answer to the fundamental problem of war at that time: how to return maneuver to a battlefield dominated by the firepower revolution. As tanks and aircraft increased in performance and reliability, Soviet doctrine changed to meet the changes in warfare brought about by the maneuver revolution resulting from the combination of new technologies and new doctrines in the 1920s and 1930s. This process continued—although interrupted by the purge of the army in 1937 and the consequent triumph of ideological stupidity through 1941—until the late 1950s when the advent of the nuclear age again posed a seemingly insurmountable challenge to operational art. Of what import is operational art, Soviet theorists and political leaders asked, when the next war will certainly be decided by nuclear missiles? By the late 1960s, those theorists (and a new group of political leaders) had come to the conclusion that operational art epitomized by the rapid maneuver of large-scale armored forces remained at the center of modern warfare, and found that the techniques developed to support such art in the 1920s were readily adapted to the new conditions of the nuclear age.

Deep Battle is the only part of Soviet operational art which is reasonably well known in the West, and it is the element of Soviet doctrine most accurately represented in AirLand Battle doctrine. Soviet Field Regulation 1936 (PU-36) described Deep Battle as “attacking the enemy simultaneously over the entire depth of his field-force layout with a view to isolating him,

completely surrounding him, and destroying him.”⁷ But Deep Battle was only part of Soviet operational art. To understand fully how the Soviets intended to achieve dominating maneuver, we must look more closely at the context and content of Soviet operational art.

The Context of Deep Battle

Deep Battle doctrine was developed specifically to solve the fundamental problem in war at the time: how to restore maneuver to a battlefield which had become static. Despite the Soviets’ excellent understanding of the problem, they could propose no solution to it in the 1920s aside from the wish that technology would solve the dilemma that technology had created. What they could and did do, however, was identify the key traits which the new technology would require in order to solve the principal problem in war.

The Soviets recognized that they were in a period of rapid technological change and that a revolution in military affairs (RMA) was imminent,⁸ but they did not simply wait to see what that RMA would bring. On the contrary, even in 1921, when the performance of tanks was still hopelessly inadequate to the task, they began to outline what tanks would have to do in order to solve the operational problem. Soviet military leaders decided to guide the RMA by driving technological change in a direction established by doctrine rather than allowing unfettered technological change to determine it.⁹

Successive Operations—The Heart of Soviet Operational Art

Deep Battle was not alone the entire solution of the problem, for, in addition to trench warfare and the elastic defense-in-depth, the Soviets believed that the consequences of the development of mass armies and of the complete mobilization of societies for war also had to be dealt with. A war between mass armies, they believed, could not be won in a single general engagement but only in an uninterrupted series of successive victories.¹⁰ Napoleon’s age had passed: the search for a single decisive battle in the modern age would be fruitless.¹¹

The Soviets came to believe, therefore, that victory in modern warfare could be attained only through a series of operations executed consecutively and that “the uninterruptedness of the conduct of operations is the main condition of victory.” Operations could not and should not alternate with pauses, they argued, and commanders must act creatively to maintain constant pressure on the enemy.¹²

M. N. Tukhachevskii, Chief of the General Staff of the Soviet Armed Forces in the 1930s, wrote in 1924 that operations must flow together as though they were simply “separate extensions of a single operation.” If the enemy can once be brought to battle, Tukhachevskii reasoned, and his defensive position broken, then the “new destructive operation must follow straight from the advance, without any loss of time whatever.” The key to victory in operations, Tukhachevskii believed, was maintaining the initiative at all times:

One must remember that, even if he has only routed the enemy in the initial operation rather than destroyed him, the attacker is in an extremely favourable position vis-à-vis the defeated side. He has control of the situation, provided only that he denies the enemy freedom of action by continuous pursuit.¹³

Tukhachevskii placed special emphasis on the absolute necessity for exploitation to follow immediately on penetration, because a pause "deprives the victor of continued control of the situation . . . [and] faces him with the need to fight a new battle, in which the chances of success are more or less equal for both sides, just as they are in the initial operation."¹⁴

This belief in the danger of pauses was one of the fundamental principles of Soviet operational art. G. S. Isserson, the Chief of the Department of Operational Art at the Frunze General Staff Academy in the 1930s, saw Deep Battle and the uninterruptedness of operations as inseparable. He argued that in the conditions of contemporary warfare "future deep operations will appear not as single links of a series of interrupted engagements, but as an unbroken chain extending for the entire depth of military activities."¹⁵

This vision of deep battle is dramatically different from the vision of deep battle which served as the basis for AirLand Battle. Whereas the depth in AirLand Battle was to be achieved by artillery, aviation, and missile fires,¹⁶ Isserson believed that battle depth would result from the rapid penetration of ground forces into the enemy's rear and their uninterrupted pursuit of his fleeing forces. Isserson saw ground forces as the heart of all operations, close and deep, and saw artillery and aviation elements only as support elements for those ground forces. He believed, moreover, that the campaign would be decided by deep operations pursuing the vanquished foe.¹⁷

Nevertheless, the real solution to the problem, Isserson argued, lay not in technology or even in the development of appropriate doctrine for using the technology, but in the proper understanding of the nature of war. In the period of mass armies and defenses deployed in great depth, Isserson believed that army doctrine must be changed fundamentally. An army simply could not deploy for maneuver in depth in the same fashion in which it would deploy to fight linear war.

Isserson recognized that the reader would ask, "How can you keep the attack going that long? You will surely have to stop when your attack culminates and regroup prior to retaking the offensive!" He responded, "The exhaustion of the offensive has its true cause not so much in the self-exhaustion of the strength of the attacker as in the growth of the opposition of the defender." For the defender, pushed back on his reserves and his logistical bases, may well end up stronger at the culminating point of the attack than he had been at the beginning. Isserson believed that the greatest danger for the attacker lay in thinking that "the final moment of the operation would be the easiest," and therefore failing to prepare adequately for the final, climactic battle deep in the enemy's rear.

He argued that, on the contrary, the initial attack, "always secured by the timely concentration of forces and well-planned preparation," will be by far the easiest, but that

the greatest tension and crisis must be expected at the end. The art and firmness of the operational commander consists in approaching this decisive moment with full providence, with a new wave of operational efforts and fully armed with the necessary forces and means for the final completion of the destruction operation.

He concluded that "the contemporary operation is an operation of depth; it must be calculated for the entire depth and must be prepared to conquer the entire depth."¹⁸

Such a general statement of the "solution," Isserson recognized, provided no solution at all. He saw, rather, that doctrine had to include specific suggestions for the solution of known problems. Isserson was not willing to accept a doctrine which foresaw that attacks would culminate prematurely, causing the army to go over to the defensive while preparing new strikes. He believed instead that the deployment and maneuver of the attacking forces had to be changed to avoid such premature culmination:

The deep echelonment of the opposition calls forth just as deep a deployment of the offensive. This offensive must be like a whole series of waves flowing toward the shore with growing strength in order to wash away and destroy it with their uninterrupted blows from the depths.¹⁹

Isserson thus introduced the notion that is at the heart of Soviet operational art: the echelonment of the attack to match the echelonment of the defense, and the principle of strategic dispersion of forces prior to their massing for the final decisive blow.

The outgrowth of the echelonment of the offensive was the "operational-maneuver group" (OMG).²⁰ The concept is obvious in light of the experience of the First World War: the forces which make the breakthrough cannot then exploit it in the face of strong resistance, for they will already have exhausted themselves, whereas arriving defending reserves will be fresh. A special "exploitation echelon" must, therefore, be maintained which can penetrate the breach opened by the assault forces and move for decisive victory into the operational depths. The Soviets conceived of the OMG as a second-echelon force which, itself tactically echeloned,²¹ would be capable of carrying on a series of uninterrupted consecutive operations culminating in "the destruction of the opposition of the defense throughout the entire operational depth." Isserson believed his principal enemy to be positional warfare, and sought to defeat it not simply with Deep Battle or OMGs, but with the true implementation of the operational art: the pursuit of dominating maneuver in the form of a planned series of consecutive operations conducted without pause

from the moment when breakthrough was achieved to the complete destruction of the enemy's defense throughout its entire depth.

AirLand Battle Doctrine

AirLand Battle doctrine is closely akin to the precepts of Soviet operational art outlined above. The kinship is especially close in the areas of Deep Battle and armored doctrine. Despite the numerous passages in FM 100-5/1986 which resonate strongly with Soviet operational art, however, many other passages, and many more omissions, reveal that the authors of FM 100-5/1986 rejected some of the central tenets of Soviet operational art. The AirLand Battle doctrine outlined in FM 100-5/1986 is, therefore, contradictory and incoherent in important areas and does not provide a clear guide for the conduct of war at the operational level.

To begin with, however, AirLand Battle doctrine was a giant step forward for the American army, and the "tenets" of AirLand Battle were and are far superior to the "principles of war" which guided American doctrine before 1986, and which seem to be returning to prominence today (at least to judge by FM 100-5/1993). AirLand Battle doctrine placed maximum emphasis on the initiative:

[AirLand Battle doctrine] is based on securing or retaining the initiative and exercising it aggressively to accomplish the mission. . . . [W]e must throw the enemy off balance with a powerful blow from an unexpected direction, follow up rapidly to prevent his recovery and continue operations aggressively to achieve the higher commander's goals.²²

The first tenet of AirLand Battle, initiative, reads almost as if it had been written by Isserson:

Applied to the force as a whole, initiative requires a constant effort to force the enemy to conform to our operational purpose and tempo while retaining our own freedom of action. . . .

In the attack, *initiative implies never allowing the enemy to recover from the initial shock of the attack*. This requires surprise in selecting the time and place of attack; concentration, speed, audacity, and violence in execution; the seeking of soft spots; flexible shifting of the main effort; and prompt transition to exploitation. The goal is the creation of a fluid situation in which the enemy steadily loses track of events and thus coherence. *The defender is not given the time to identify and mass his forces or supporting fires against the attack because of the ambiguity of the situation presented to him and the rapidity with which it changes*. Retaining the initiative over time requires thinking ahead, planning beyond the initial operation, and anticipating key events on the battlefield hours, days, and weeks ahead.²³

AirLand Battle doctrine implicitly recognized the problem which the Soviets had developed their operational art to solve—if the defender is given the opportunity

to gather his wits about him and reorganize, he can at the least re-form a coherent defense and force the attacker to fight, in effect, another penetration battle, the costs of which will be high and the result of which will be in doubt. The solution is to develop a force structure and a doctrine which, having once penetrated, will be able to retain the initiative, keep the enemy disorganized, and push forward at high speed until total victory has been attained.

The second tenet of AirLand Battle, agility, also underlined the importance of speed and the need to retain the initiative:

Agility—the ability of friendly forces to act faster than the enemy—is the first prerequisite for seizing and holding the initiative. Such greater quickness permits the rapid concentration of friendly strength against enemy vulnerabilities. This must be done repeatedly so that by the time the enemy reacts to one action, another has already taken its place, disrupting his plans and leading to late, uncoordinated, and piecemeal enemy responses.²⁴

In other words, the attacker must force changes in the situation faster than the defender can evaluate and respond to them. In this way the attacker can keep the defender from ever re-forming a coherent defense and initiating counter-measures of his own. Similarly, in its discussion of close, deep, and rear operations and the use of armored forces, AirLand Battle doctrine appears to be a statement of determination to execute dominating maneuver—the goal of good operational art.

But there were important problems with American operational doctrine even in 1986. In the first place, AirLand Battle doctrine took no real account of the issue of consecutive operations. The Soviets in the 1920s had identified not one, but two fundamental problems in that epoch of warfare: trenches and positional warfare resulting from the firepower revolution formed one problem, but the enormous growth both of populations and of industrial power, and the development of the means of harnessing those factors to create mass armies, formed a separate problem. Of those two problems, the mass army and the mobilized state has proved the more enduring, yet AirLand Battle doctrine did not recognize that this problem might prevent the Army from attaining decisive objectives in a single operation. It mentioned only:

Sequential campaigns in a single theater occur when a large force changes or secures its original goal or when the conditions of the conflict change. . . . Or a new offensive campaign may have to be undertaken if strategic goals change or are not secured in the initial campaign.²⁵

Far from recognizing and confronting the likely need for consecutive operations, therefore, AirLand Battle doctrine implicitly assumed that consecutive operations, in the ordinary course of events, would not be necessary. In other words, AirLand Battle doctrine rejected the advance made by Soviet operational art and returned to the age of Napoleon in its thinking:

[Operational art's] essence is the identification of the enemy's operational center-of-gravity—his source of strength or balance—and the concentration of superior combat power against that point to achieve a decisive success.²⁶

The general assertion that the attacker should seek out the defender's center of gravity and attempt to destroy it is, of course, correct. The problem with this statement, as with many other statements in FM 100-5/1986, is, rather, in its tone and in its omissions. In general, AirLand Battle doctrine leaves the reader with the feeling that if it is not possible to win the war in a single campaign, or the campaign in a single operation, then American forces will pause, regroup, plan, and deliberately launch another campaign or operation. The doctrine implies that it is not necessarily the case that successive operations will be needed. By failing entirely to address the issue of operational pauses, furthermore, FM 100-5/1986 conveys the impression that the length of the pause is not important. These problems are especially clear in its fixation on culminating points and phases of the offensive.

Reaching back to Clausewitz for another concept, AirLand Battle doctrine asserts that "a vital consideration for operational commanders during a campaign is sensing culminating points." It continues:

In the attack, operational commanders design their campaigns to defeat the enemy prior to reaching their culminating point. Defending commanders try to avoid a decision until the attacker has to assume the defense himself. The attacker must sense his own culminating point and avoid overextension. Since all offensive operations end in defensive dispositions, this phase of the campaign should be foreseen and planned.²⁷

It hardly requires saying that commanders design campaigns to win before they culminate, or that the defenders try to stay alive until the attack has culminated, thereby allowing the defenders to seize the initiative and counter-attack. It is also obvious that the attacker must be wary of his attack's culminating too soon, as well as of overextending himself. From all of which it does not follow that all offensive operations end in defensive dispositions and that a defensive phase of an offensive campaign should be foreseen and planned for. On the contrary, the conclusion should be that the attacker should in every way possible see to it that his attack does not culminate too soon. If the attacker feels that his attack will soon culminate, he should examine every expedient which could keep the attack going long enough to attain his objective. Above all, the planners of the campaign should have seen to it in the first place that the attack would succeed before it culminated and should have made provision against the need to reinforce the attack to keep it from culminating prematurely. To foresee and plan for a phase of defensive operations before the attack has achieved its objectives, a proposition stated clearly here, is to foresee and plan for likely defeat.

The theme of culminating points and transition to the defense recurs later on in FM 100-5/1986:

Operational level offensive planning must take into account the influence of friction and make a realistic estimate of friendly capabilities. When complete success cannot be attained in a single operation, the campaign should be separated into phases that allow the attacker to regain the advantage before continuing. When forces are inadequate for the complete occupation of the theater, the commander may have to assume the defensive when he has reached his culminating point.²⁸

Again, the failure in the doctrine is in omission, not in statement. It is true that when forces inadequate to attain the objective are launched on an offensive they will probably reach a culminating point and have to go over to the defensive while reinforcements are brought up and successive operations are planned. The bland statement of this proposition, however, implies that it is a normal occurrence which presents no particular problems when, in fact, it is a dreadful occurrence which may cost success in the operation, the campaign, or even the war. This statement implicitly assumes that force composition, force structure, and doctrine are constant and that they may or may not be sufficient to attain the objective. If they are not, then the attack will have to stop for a time. What will happen when the attack stops is not described, but is clear from history: the defender will regroup and reorganize his forces into a coherent defensive position. He will bring up reinforcements and develop fieldworks and obstacles. If the pause is long enough, he may correct deficiencies in his own planning and doctrine which the just-concluded successful operation has shown him. In the worst case, he may launch his own offensives either as spoiling attacks or as counteroffensives. The initiative, in other words, will have passed to the defender, and the attacker again will have to expend lives, time, and treasure to regain it and proceed with his own attack. This is not a matter to be tossed off lightly or (as here) totally ignored. On the contrary, it is the heart of the problem of operational art.

The Wrong Direction: FM 100-5 in 1993

Whatever may have been the flaws of the AirLand Battle concept outlined in FM 100-5/1986, that doctrine was nevertheless both a vast improvement over previous American doctrine and a giant step in the right direction. Since the experience of the Gulf War did not invalidate the basic principles of AirLand Battle—or of operational art as the Soviets conceived it, for that matter—it would have seemed obvious that the next iteration of FM 100-5 would see even further improvement in AirLand Battle doctrine and additional steps in the right direction. Unfortunately, FM 100-5/1993 completely eliminated the more or less coherent doctrine embodied by AirLand Battle and replaced it with a confused mass of contradictory operational prescriptions which add up to a determination to move slowly and cautiously, avoid casualties at all costs, and

achieve victory through planning. So thoroughly was AirLand Battle rejected as a concept that the term does not appear in FM 100-5/1993, a sign as ominous in its own way as was the disappearance of the term "deep battle" from Soviet doctrine in the years following Tukhachevskii's murder.

The largest single change in the tone of FM 100-5 in 1993 was the incredible emphasis on planning as the route to all military benefits, to the exclusion of even the most basic advice about how to achieve good combined arms operations, synchronization, initiative, and surprise operationally:

The application of combined arms . . . is complex and demanding. *It requires detailed planning* and violent execution by highly trained soldiers and units who have been thoroughly *rehearsed*.²⁹

Retaining the initiative over time requires thinking ahead, *planning beyond the initial operations*, and anticipating key events on the battlefield hours, days, and weeks in advance.³⁰

In a violently executed attack, agility is particularly important. It requires that commanders *anticipate developments and prepare branches and sequels* so that they are ready to exploit opportunities by shifting forces and activities quickly.³¹

To preserve synchronization on a fluid battlefield, *commanders conduct detailed initial planning*.³²

In each of these examples, the problem lies not in what was said, but in what was not said. By pointing out the need for careful planning and implying that initiative, synchronization, and agility, among other traits, can be attained through planning, the doctrine obscures the fact that *action*, not preparation, wins or loses battles. The most detailed description of desirable procedures in FM 100-5/1993 focuses exclusively on the planning process:

As part of the preparation process (during the deliberate planning process for lower echelons before they issue their orders), commanders gather their subordinate commanders and battle staffs to review and adjust the synchronization of the battle plan. This brief-back is normally conducted over a map or terrain model. It begins with the subordinate commanders' descriptions of the timing and employment of their concepts of maneuver and fires to execute their commander's course of action and likely contingencies. Face-to-face synchronization meetings serve to reveal operational gaps and synchronization problems. Commanders and staffs do a lot of *if this, then this* type of wargaming. They might even ask an element to role-play the enemy to effect a two-sided nature to planning—just as will occur in the attack. Commanders also provide for branches and sequels to the basic plan so that, during conduct of the operation, units can more easily adapt while sustaining the momentum.³³

The planning process outlined in this selection is a good one—the problem is that it is far more detailed than any of the sections relating to actually

conducting operations. Whereas the doctrine outlines planning procedures down to such details as the advisability of conducting planning brief-backs over maps or terrain models, such critical operational issues as conducting and exploiting penetrations, defending against enemy attacks, and the use of reserves receive little or no attention.

The emphasis on planning is unfortunate, but does not in itself constitute a fundamental flaw in the doctrine, or a fundamental turn away from the trail blazed by FM 100-5/1986. The treatment of speed and initiative in FM 100-5/1993, however, does constitute such a turn. FM 100-5/1993 basically rejects the desirability of maintaining high-speed, high-tempo operations, and fundamentally misunderstands the nature of initiative and the ways in which an army can attain and maintain it.

FM 100-5/1993 redefined initiative from “setting or changing the terms of battle by action” to “depleting the enemy’s options while still having options of their own.” It abjured the notion of risk-taking as well; whereas AirLand Battle sought to achieve the initiative through “audacity which may involve risk-taking,” FM 100-5/1993 makes no mention of “risk-taking” and seeks to attain the initiative by “anticipating events on the battlefield”—in other words, by planning carefully.³⁴

This focus on planning to achieve initiative is not confined to the definition. On the contrary, the doctrine frequently repeats the assertion that initiative means having options when the enemy has none and that this situation can be achieved by planning and forethought:

Commanders achieve the initiative by making adjustments and having options when the enemy has none.³⁵

Staffs continually work to generate workable options for the commander as fighting continues and friendly forces seek to gain and maintain the initiative.³⁶

The initiative is critical to successful offensive operations. Whatever its purpose, campaign plans must be flexible enough to accommodate change so commanders can shift their main effort in response to either setback or opportunity without losing the initiative. Accordingly, *commanders anticipate likely enemy actions and prepare contingencies for them and train their units to do likewise. Successful commanders do not run out of options, and are always looking for ways to hurt the enemy. Anticipation and continuous formulation of attack options are key.*³⁷

Commanders and staffs gain and maintain the initiative by continuously developing executable options through the campaign to keep the enemy off balance.³⁸

This definition of initiative is fundamentally at variance with the AirLand Battle definition—and with any definition which has been used by successful armies before. Good planning is necessary if a force is to gain the initiative, as it is in any military operation, but it is not sufficient for conducting successful cam-

paigms. The keys to attaining the initiative are speed and surprise, and the key to retaining the initiative is the uninterrupted conduct of operations. All three of those elements require good anticipation and planning, it is true, but FM 100-5/1993 clearly implies that anticipation and planning alone will achieve and maintain the initiative, which they most emphatically will not. It is astounding that a doctrine supposedly drawing conclusions from the Gulf War would conclude that speed and the uninterrupted conduct of operations were less important than they had been, yet that is precisely what FM 100-5/1993 did.

In 1986, AirLand Battle had listed speed as one of the characteristics of offensive operations and stated:

*The attack must move rapidly. Speed is absolutely essential to success; it promotes surprise, keeps the enemy off balance, contributes to the security of the attacking force, and prevents the defender from taking effective countermeasures. Properly exploited, speed can confuse and immobilize the defender until the attack becomes unstoppable. Finally, speed can compensate for a lack of mass and provide the momentum necessary for attacks to achieve their aims.*³⁹

In 1993, the entire section on speed was eliminated and its place taken by a section on tempo, which rejected the importance of speed in the conduct of offensive operations:

Tempo is the rate of speed of military action; controlling or altering that rate is essential for maintaining the initiative. As opposing forces battle one another, military operations alternate between actions and pauses. Sometimes units go slow at one point in order to go fast later. Commanders seek a tempo that maintains relentless pressure on the enemy to prevent him from recovering from the shock and effects of the attack. . . .

Tempo can be either fast or slow. While speed is often preferred, commanders adjust tempo to ensure synchronization. At times, tempo may be slowed to ensure conditions are set before accelerating again to gain the advantages that come with speed. The attacker may adjust his tempo prior to the final decisive action to ensure the location of key enemy targets, to arrange forces for a simultaneous attack in depth, or to complete resupply and repositioning to sustain the immediate transition to exploitation and pursuit. . . .

*Tempo provides the necessary momentum for attacks to achieve their objectives. Tempo is a combination of speed and mass that creates pressure on the enemy. Speed, moreover, is not a substitute for the mass produced by sound tactics. Commanders who overextend their ability to mass effects or otherwise act hastily may give the advantage to the enemy.*⁴⁰

Thus FM 100-5/1993 rejects the importance of speed and concludes that mass, not speed, is the key to successful attack. Since it is clear from the rest of the doctrine that by mass is meant not massing of forces, but massing of fires, it is clear that FM 100-5/1993 is an applied firepower doctrine: tactics which in any

way hinder the massing of *all available fires*, even for the purpose of maintaining speed and the initiative, are “unsound.” Speed has been replaced as a desirable characteristic by “tempo” which is defined as speed *plus mass*—and speed was definitely *not* considered sufficient to make up for deficiencies in mass.

The emphasis on mass and planning, and the deemphasis of speed, reflect a more fundamental problem: FM 100-5/1993 is a doctrine which is afraid of the capabilities of its own forces and is dominated by the fear of taking casualties. In discussing battle command, the emphasis is decidedly not on audacity and decisiveness:

Decision making is knowing *if* to decide, then *when* and *what* to decide. These are tactical, operational, and strategic judgments. Being in command means anticipating the activities that will be put into motion once a decision is made, ***knowing how irretrievable some commitments will be once put into motion***; knowing the consequences of the act of deciding; anticipating the outcomes that can be expected from the implementation of a decision.⁴¹

In discussing penetration operations, the emphasis is on how costly they are:

Because penetration is an attack into the strength of the defense, it could be costly in friendly casualties. Penetration may be necessary to rupture enemy defenses on a narrow front to create assailable flanks and access to the enemy's rear. Commanders may attempt penetration on one or several axes, depending on the forces available. Commanders carefully weigh the advantage of attacks on multiple axes to avoid undue costs and casualties.⁴²

It is quite true that penetration operations may be higher in cost than exploitations, and that they should be avoided whenever possible—but the fear of losing control of a fast battlefield has led to a determination to move slowly and cautiously which will ensure that the army will have to fight frequent penetration battles. The whole idea behind the Soviet emphasis on speed, and AirLand Battle's emphasis on speed and initiative, was that the army would have to fight a single penetration battle, while the maintenance of the initiative through the conduct of high speed operations would ensure that all future operations would be in the nature of exploitations. The point was to prevent the enemy from ever re-forming a coherent defense which would have to be penetrated. FM 100-5/1993 still desires to keep the defense disorganized, but has become so concerned with culminating and with loss of “synchronization” through “excessive” speed, that it practically guarantees the defense time to reorganize itself.

The fear of losing control has gone so far that FM 100-5/1993 defines a new type of culmination—intelligence culmination:

Factors other than combat losses and lack of resources can influence culmination. For example, a commander could outrun his current intelligence in an attack that moves faster and farther than planned. The resulting increase in risk by continuing to advance may be acceptable if the commander knows he can

overmatch any combination of forces he is likely to encounter. Given the lack of sufficient intelligence at that time, however, he may begin taking needless losses or otherwise jeopardize the success of his operations. At that point, the better course of action might be to go more slowly to develop the situation.⁴³

Casualties should be kept to a minimum. There can be no doubt of the desirability of conducting operations with as little loss of life as possible. The question is how to minimize losses, however, not whether or not to minimize losses. The confusion in current doctrine is fundamental, in that it reflects the fact that many people identify speed with loss of control and unconcern about losses. Slowness, on the other hand, correlates highly with prudence and the desire to minimize losses. Despite common misperceptions, however, even Soviet doctrine was designed to minimize losses, and the lessons of the historical study of operational art make it clear that appropriate speed keeps losses to a minimum, and prudent slowness, to the contrary, is highly dangerous.

Part of the problem lies in the fact that FM 100-5/1993 greatly underestimates the capability of modern Army forces to move fast without losing control and incurring "needless" losses, and also greatly underestimates the enemy's likely ability to respond. Despite numerous exhortations to remember that battle is not one-sided, FM 100-5/1993 never considers that operational pauses and reductions in tempo give the enemy the opportunity to respond and reform his defenses. Perhaps because the Iraqis proved so maladroit in this area, the current doctrine takes it for granted that we can move slowly and deliberately with impunity. There is no basis in fact for this belief. In the face of a motivated, determined, well-equipped enemy, slowness kills more surely than speed. FM 100-5/1993 presents no argument to undermine the view of operational art outlined by the Soviets in the 1920s and 1930s, which argued that high-speed ground operations, conducted in harmony with air (and now missile) attacks throughout the depth of the enemy defense, would make it possible to launch a single penetration operation and then achieve victory on however large a scale through the rapid and uninterrupted exploitation of the initial breakthrough. That principle, the principle of dominating maneuver, remains valid to this day and is not in any way challenged by FM 100-5/1993. It is the principle of operational art to which American doctrine urgently needs to return.

Toward a New FM 100-5

All of the flaws in FM 100-5 outlined above are flaws of execution which come from a major flaw of conception. Field Manual 100-5, *Operations*, claims to be the Army's "keystone warfighting doctrine. It is a guide for Army commanders. It describes how to think about the conduct of campaigns."⁴⁴ The trouble is that FM 100-5 does not seek to answer the right question. It is organized in a way which answers the question, "What sorts of operations might the Army have to conduct and how, generally, should it think about

conducting those operations?" The result is a very shallow doctrine. An Army commander who looked to FM 100-5 to find out how to conduct offensive operations, what the role of the exploitation in operations should be, or how to deploy forces and conduct operations so as to achieve the most decisive possible victory in the shortest possible time with the fewest possible casualties, would come up almost empty. FM 100-5 describes what the desired outcomes and methods of proceeding are, but leaves vague or undefined how they should be achieved. It is a doctrine without a content.

Part of this lack of content is surely deliberate, and reflects the desire to avoid restricting the actions of commanders in the field. This desire is reasonable—it is not possible for the writer of doctrine to prescribe in advance the details of deployment or of the operational use of forces in any given circumstance. On the other hand, a balance must be struck between trammeling the commander's options and giving him no guidance whatsoever. The Army's "keystone warfighting doctrine" must do more to suggest how the commander on the ground can go about accomplishing what he must.

One way to do that is to reorganize FM 100-5 so that it answers the questions, "What are the most significant problems in warfare in this epoch which a successful army must solve, and how can we go about solving them?" Such an approach would give to FM 100-5 a coherence, cogency, and content that would make it much more useful to operational commanders than it currently is. Soviet Deep Battle doctrine was specifically designed to answer that question for the main problem of the 1920s: how to return maneuver to war. It began explicitly with that question, and just as explicitly answered it: deep battle, armored forces of certain capabilities, and the conduct of operations in a particular general way would avoid trench warfare and restore mobility. From that doctrine it was possible to determine what technical characteristics weapon systems had to have, and then to press the development of those systems along the right lines.

The Soviets could also easily determine what their tactical and operational doctrine had to be in order to answer the needs of warfare at the time. The doctrine that they produced was coherent and had great content, although it did, in fact, go too far, restricting the options of commanders by paying excessive attention to tactical and operational details. American doctrine today can proceed along a similar course without, however, restricting commanders' options. It must chart a middle course between Soviet doctrine of the past and FM 100-5 as it is now, answering the questions: "What are the most significant problems in warfare today, and how will we solve them to attain victory?"

NOTES

1. Isserson, G. S., "The Evolution of the Operational Art," in *Voprosy strategii i operativnogo iskusstva v sovetskikh voennykh trudakh 1917-1940* (*Questions of Strategy and Operational Art in Soviet Military Writings, 1917-1940*) (Moscow: 1965), p. 389. Hereafter cited as VSOI.

2. Hereafter FM 100-5/1993.
3. Douglas MacGregor, *Breaking the Phalanx*, forthcoming from Praeger, and TRADOC Pamphlet 525-5, *Force XXI Operations: A Concept for the Evolution of Full-Dimensional Operations for the Strategic Army of the Early Twenty-First Century*, hereafter *Force XXI*.
4. *Force XXI*, p. 3-11, for example, states, "A key component of depth and simultaneous attack will be measures taken to win the information war. These measures will include the establishment of electromagnetic-spectrum supremacy through nonnuclear electromagnetic pulse generators, space-based information denial systems, and computer viruses." Information warfare is, of course, not a new concept, but *Force XXI* has given it a new meaning.
5. *Force XXI* is explicitly not a work of doctrine, but instead sets out to describe "the conceptual foundations for the conduct of future operations in war and OOTW." (*Force XXI*, p. iii).
6. The concept of dominating maneuver is well described and documented in MacGregor, *Breaking the Phalanx*.
7. Field Regulation, 1936 (*Polevoi ustav* 1936 or simply PU-36), §112, as cited in Richard Simpkin, *Deep Battle: The Brainchild of Marshal Tukhachevskii* (New York: Brassey's, 1987), p. 197. This field regulation was the best and most complete official statement of Deep Battle doctrine and the rest of Tukhachevskii's (and others') operational art. It was gutted following the army purges which began in 1937.
8. This term had not yet come into use, but Soviet military leaders at the time made constant reference to the fact that future wars would be fought in radically different ways under radically different sets of circumstances.
9. See, for example, V. K. Triandafilov, ed. and trans. Jacob Kipp, *The Nature of Operations of Modern Armies* (Portland, Ore.: Frank Cass, 1994), p. 21. Triandafilov was a Deputy Chief of Staff of the Red Army writing in 1929.
10. *Ibid.*, pp. 145 and 149-50.
11. I. P. Uborevich, VSOI, p. 171. Uborevich was a Deputy People's Commissar of Military Affairs writing in 1922.
12. Kamenev, VSOI, p. 152.
13. Tukhachevskii, in Simpkin, p. 91.
14. *Ibid.*, p. 92.
15. G. S. Isserson, VSOI, pp. 395-97.
16. This is clear from FM 100-5/1986, pp. 19-20. It is interesting to note that that doctrine defines "deep maneuver" as an element of "close operations," rather than of "deep operations."
17. It is difficult to compare Soviet notions of depth with American notions, for FM 100-5/1986 defines close operations as those operations concerning units in contact with the enemy, and deep operations as those concerning units not in contact. Presumably even operations deep in the enemy's rear are, therefore, "close" operations if they are conducted by forces in contact with the enemy. The difference in definitions is intriguing.
18. Isserson, p. 398.
19. *Ibid.*, p. 399.
20. See David Glantz, *Soviet Military Operational Art: In Pursuit of Deep Battle* (Portland, Ore.: Frank Cass, 1991), and *The Soviet Conduct of Tactical Maneuver: Spearhead of the Offensive* (Portland, Ore.: Frank Cass 1991).
21. *Ibid.*
22. FM 100-5/1986, p. 14.
23. *Ibid.*, p. 15. Emphasis added.
24. *Ibid.*, p. 16.
25. *Ibid.*, p. 10.
26. *Ibid.*
27. *Ibid.*, p. 32.
28. *Ibid.*, p. 110.
29. FM 100-5/1993, p. 2-3. Emphasis added.
30. *Ibid.*, p. 2-6. Emphasis added.
31. *Ibid.*, p. 7-1. Emphasis added.
32. *Ibid.* Emphasis added.
33. *Ibid.*, pp. 8-3 - 8-4.
34. Compare FM 100-5/1986, p. 15, and FM 100-5/1993, p. 2-6.
35. FM 100-5/1993, p. 6-15.
36. *Ibid.*, pp. 6-15 - 6-16.
37. *Ibid.*, p. 6-19. Emphasis added.
38. *Ibid.*, p. 8-2.
39. FM 100-5/1986, p. 97. Emphasis added.
40. FM 100-5/1993, pp. 7-2 - 7-3. Emphasis added.
41. *Ibid.*, p. 2-14, italic in the original, **bold italic** added.
42. *Ibid.*, p. 7-12.
43. *Ibid.*, p. 6-9.
44. FM 100-5/1986, p. i. and FM 100-5/1993, p. iv.

Command and Control: The Essence of Coalition Warfare

ANTHONY J. RICE

“What experience and history teach us is this: that people and governments never learn anything from history, or have ever acted upon it.”

—Hegel

The fundamental change in international relations resulting from the collapse of the Warsaw Pact has reawakened interest in coalition warfare. Unlike alliances, which have an enduring element to them, coalitions are ad hoc, short term, and established for a specific objective.¹ The best recent example is Operation Desert Shield and Desert Storm, which showed the benefits and difficulties of coalition warfare.

The most contentious aspect of coalition operations is command and control. This sensitivity reflects the participants' concern over who will command their forces and what authority that commander will have. The converse is equally significant to military and political leaders in each nation contributing forces to a coalition: the degree of day-to-day control national authorities will have over the employment of their own forces. These issues will be developed in this article through an evaluation of salient lessons from the wars of this century, with particular emphasis on the two World Wars. Those lessons will be compared to current doctrine to discover whether they appear to have affected current US doctrine on command and control of coalition operations.

Within the US forces, recent joint and single-service doctrine has discussed in varying detail principles for the planning and conduct of coalition warfare. Of particular note is the absence of one of the principles of war, unity of command. Instead, unity of effort is proposed, since the former may not be achievable.

Coalition Operations as a Management Concept

The renewed interest in coalition warfare is reflected at the highest level and featured in both the National Security Strategy (NSS)² and the National Military Strategy (NMS)³ of the United States. The NSS establishes

several circumstances favoring the use of coalitions in advancing the interests of the United States and its allies:

We will act with others when we can.⁴

In alliance and partnership when our interests are shared by others.⁵

Overseas Presence: Enhance the effectiveness of coalition operations, by improving our abilities to operate with other nations.⁶

The NMS is equally specific: "While we maintain the unilateral capability to wage decisive campaigns to protect US and multinational security interests, our armed forces will most often fight in concert with regional allies and friends, as coalitions can decisively increase combat power and lead to a more rapid and favorable outcome to the conflict."⁷ Since coalition operations will therefore be the most common method for the employment of US forces, the required doctrine must be developed or adapted to post-Cold War requirements. This process is well under way, albeit at an early stage. Useful insights for adapting current doctrine can be developed from an inquiry into the evolution of coalition warfare in modern history.

Coalitions Through World War I

Coalition warfare is not a new concept. It was the enduring feature of European wars throughout much of the 18th and early 19th centuries. Indeed, the Napoleonic Wars demonstrate graphically the key features of coalitions: their short duration and their ad hoc nature. In this century the World Wars were between coalitions, while Korea (under the UN), Vietnam, and the 1990-91 Gulf War were fought by US-led coalitions. Even in the Western Hemisphere, where the United States could be perceived as wholly dominant, the political necessity of legitimacy has produced coalition operations in Grenada and Haiti. The initial burden of the latter operation, managed through the UN, fell on the United States.

The Cold War caused nations with common interests to join together in pursuit of a common objective, although the enduring nature of the threat at the time and the necessary response from the World War II Allies seemed to favor an alliance over a coalition. For nearly 40 years, two alliances—the Warsaw Pact and NATO—confronted one another across the inter-German

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border. Elsewhere the United States aligned itself with friendly states in regional alliances—CENTO and SEATO⁸—although they proved to be short lived when compared to the North Atlantic Alliance.

It is the two World Wars, however, that have had the greatest effect on our understanding of how coalition warfare can be conducted. There is almost a continuum from the loose structures of 1914 through to the conclusion of World War II in Europe in May 1945, wherein the most developed coalition ever assembled achieved victory.

World War I was fought primarily between two coalitions, the Central Powers (principally Germany, the Austro-Hungarian Empire, and Turkey) and the Allies (principally France, Russia, the United Kingdom, Italy, and eventually the United States). The command arrangements for much of the war were extremely loose, at best relying on cooperation and coordination among the Allies, with nations pursuing their own national goals much of the time. Today such arrangements are described as parallel command, which “exists when nations retain control of their deployed forces. If a nation within the coalition elects to exercise autonomous control of its force, a parallel command structure exists.”⁹ It was only in 1918, when the Allies on the Western Front were staring defeat in the face, that a more thoroughly integrated command system was adopted.

The concept of parallel command therefore underpinned Allied command relationships for much of the war. On the Western Front, where the British army fought beside the much larger French army, command arrangements were national. On his assumption as commander in chief of the British army in France in 1915, General Sir Douglas Haig was reminded by the War Minister, Lord Kitchener: “Your command is an independent one and you will in any case not come under the orders of any allied general.”¹⁰ Haig, however, had to command his army within the reality of the high-intensity operations of the Western Front and rapidly came to a different conclusion. Later that year he wrote, “I am not under General Joffre’s orders, but that would make no difference, as my intention was to do my utmost to carry out General Joffre’s wishes on strategic matters as if they were orders.”¹¹

The arrival of the United States Army on the Western Front in 1917 saw no immediate change in the extant arrangements. General John J. Pershing’s directive from the Secretary of War stated: “In operations against the Imperial German government, you are directed to cooperate with the forces of the other countries employed against the enemy; but in doing so the underlying idea must be kept in view that the forces of the United States are a separate and distinct component of the combined forces, the identity of which must be preserved.”¹² Pershing’s perception of successful Allied command arrangements was to be revealed in April of the following year.

It was not until the near collapse of the Western Front in March 1918 following the major German offensive that changes were made in command and control among the Allies; even then they were not immediate. A resolution

***“The most contentious aspect of coalition
operations is command and control.”***

signed at Doullens on 26 March 1918 stated: “General Foch is charged by the British and French governments to coordinate the action of the Allied armies on the Western Front. To this end he will come to an understanding with the Commanders-in-Chief, who are to furnish him all the information necessary.”¹³ So although General Foch was established as a supremo, he was given no authority. Continued deterioration on the Western Front, exacerbated by new problems of coordination between the British and French armies, necessitated further action.

On April 3 the Prime Ministers of France and the United Kingdom, together with their senior military commanders and General Pershing, met at Beauvais to review again the command arrangements established little more than a week earlier. With general agreement that the Doullens Resolution had not achieved the desired result, General Pershing stated the case for unity of command. His words then are as apposite today:

The principle of unity of command is undoubtedly the correct one for the Allies to follow. I do not believe that it is possible to have unity of action without a supreme commander. We have already experience enough in trying to coordinate the operations of the Allied Armies without success. There has never been real unity of action. Such coordination between two or three armies is impossible no matter who the commanders-in-chief may be. Each commander-in-chief is interested in his own army, and cannot get the other commander's point of view or grasp the problem as a whole. I am in favor of a supreme commander and believe that the success of the Allied cause depends upon it. I think the necessary action should be taken by this council at once. I am in favor of conferring the supreme command upon General Foch.¹⁴

Pershing's view was reflected in the Beauvais Agreement:

General Foch is charged by the British, French and American governments with the coordination of the action of the Allied Armies on the Western Front; to this end there is conferred on him all the powers necessary for its effective realization. To the same end, the British, French and American governments confide in General Foch the strategic direction of military operations. The Commanders-in-Chief of the British, French and American Armies will exercise to the fullest extent tactical direction of their armies. Each Commander-in-Chief will have the right to appeal to his government, if in his opinion his army is placed in danger by the instructions received from General Foch.¹⁵

Between April and November 1918, however, General Foch was able to achieve only a coordinating role, since his staff was smaller than that of a brigade.

World War I forced the evolution of command and control in a coalition from parallel command to unity of command, exercised finally by a Supreme Allied Commander-in-Chief on the Western Front, General Foch. The inability of coordination measures, even with a compliant British Commander-in-Chief, Sir Douglas Haig, to meet the demands of Allied action against the rapidly changing situation in the spring of 1918, persuaded the Allied leaders that unity of command was a prerequisite to effective Allied warfighting. The events of 1918 were to have a profound effect on the participants, not in the immediate aftermath, but in their influence on the Anglo-American alliance of World War II.

Coalitions in World War II

World War II gradually forced the development of coalition warfare to the greatest level of integration and sophistication in history. The Franco-British alliance of 1939-40 showed that some of the lessons of 1914-18 had been assimilated. A Supreme War Council was established consisting of the two Prime Ministers, their Foreign Ministers, and their senior military advisers. A system of lead nation was established, based on preponderance of forces within a given theater. In the Mediterranean Sea, the French led in the west and the British, with a French naval squadron under command, led in the east. In France, Lord Gort, commander of the British Expeditionary Force (BEF), reported to the French commander in chief via the commander of French forces in northeast France, General Georges.

While this might appear to show the lessons of 1918 being put into practical effect, real unity of command was never established among the forces arrayed initially against the Nazis. Field Marshal Montgomery, then a Division Commander in the BEF, wrote: "Between September 1939 and May 1940, the Allies had never conducted any exercises, either with or without troops, [although] an indoor exercise on the model could easily have been held. There was no coordination between the operations of the Belgians, the BEF, and the First French Army."¹⁶ The defeat of the French in the summer of 1940 and the emergence of the Anglo-American alliance in 1941-42 fostered a new approach to the problems of coalition warfare, specifically to the particular issue of command of coalition forces.

These issues appeared at the forefront of Allied considerations within weeks of the attack on Pearl Harbor, driven by the rapidly deteriorating situation in the East Indies, the Philippines, and Malaya. The need for a supreme commander in the theater was raised by General Marshall in December 1941 at the Arcadia Conference in Washington, when he declared "that the adoption of unified command [in the theater] would solve nine-tenths of the problems of British-American cooperation."¹⁷ The resulting Australian, Brit-

ish, Dutch, American Command (ABDACOM) under General Wavell firmly established the principle of unity of command from the beginning of the new coalition; that principle was to prove fundamental to success.

The difficulties of agreeing on the terms of reference and authority of the commander in chief of ABDACOM were profound. Early drafts were full of prohibitions, and his final powers were very constrained. General Marshall, however, seemed undismayed: "If the Supreme Commander ended up with no more authority than to tell Washington what he wanted, such a situation was better than nothing, and an improvement over the present situation."¹⁸ Both sides appreciated the many failings of this initial attempt at establishing the authority of a coalition commander, but the die was cast in the acceptance of the principle of unity of command. It can be no accident that Marshall was the proponent of this arrangement. As General Pershing's chief staff officer from 1917 to 1924, he had witnessed firsthand the tribulations of Allied command in 1918.

The difficulties encountered by the two allies in coming to a common view and understanding of the principles of command should not be underestimated, since their approach was diametrically different. Both accepted the need for a coordinated higher direction of the war to refine grand strategy; establishment of the Combined Chiefs of Staff in Washington met that need. However, theater command and the authority vested in those commanders was another matter. The British regarded service chiefs within a theater as co-equals (a committee) and Churchill required close supervision of his commanders, doubtless born out of the many failings of British generalship in the early part of the war: "It is not sufficient to give a general a directive to beat the enemy and wait and see what happens. The matter is much more complicated. The general may well be below the level of his task, and has often been found so. A definite measure of guidance and control is required from the staffs and from the high government authorities."¹⁹ Conversely, the American tradition favored a broad delegation of responsibility and authority to a commander, on the principle that he should be assigned a job, given the means to do it, and held responsible for its fulfillment without scrutiny of the measures employed.²⁰

The decision to carry out a combined invasion of North Africa in late 1942 drew the issue of theater command to the fore. Fortunately, the American view prevailed and General Eisenhower was appointed supreme commander for Operation Torch. General Marshall advised him that "it is the desire of the War Department that you as Commander-in-Chief of the Allied Forces should have the maximum feasible degree of authority and responsibility, and that you should operate at all times under as broad a directive as possible."²¹ Whatever the difficulties, and they had been significant, by the time the coalition's first real offensive operation began, the principle of unity of command and a supreme allied commander for the theater had been established. Recognizing, however, that this was the first time a British army had served under a US

commander, General Andersen, Commander of 1st (British) Army, was given the right of appeal to national authorities—subject to some constraints—if he felt his army was threatened with dire consequences. While this right of appeal was in principle retained throughout the war, it was seldom exercised.

Allied unity of command was confined to the Western Mediterranean and later to the Western European and South East Asian theaters. Elsewhere—for example in the Eastern Mediterranean and in the Pacific—the old principle of lead nation remained, since these were either single-nation areas, or at least dominated by the commitment made by one nation. It could be argued that a greater level of unity of command and integration of forces was achieved in the coalition forces in Europe than in the US-dominated Pacific, even up to the projected invasion of Japan.

Application and Lessons, 1943-45

“Unity of command” in the Anglo-American alliance had a particular meaning, distinct from the natural authority implicit in the term command. One study noted: “It implies special arrangements to bring together under a single commander elements ordinarily controlled by separate sources of authority, each sovereign within its own sphere. Invariably the powers of the joint commander have been closely hedged about by restrictions designed to preserve the direct chain of command from the central authority of the service or nation to its own commanders in the field.”²² The same author continued, “Allied unified command was always primarily concerned with control of forces rather than territory, and it shunned as far as possible the administrative jurisdiction which was inseparable from territorial control.”²³ Despite restrictions on the scope of the authority of an Allied commander exercising unity of command, it should not be presumed that he lacked authority. Quite the contrary; it was in the final instance General Eisenhower’s decision alone to launch Overlord and Market Garden, and later to pursue a broad front strategy in Western Europe.

For an allied commander to exercise his authority he required a headquarters staff, a tool Marshall Foch lacked in 1918. Allied Forces Headquarters for Torch was a new and unique structure: a fully integrated combined staff, with a US commander and chief of staff and British component commanders. Its genesis was almost certainly the combined staff that General Eisenhower had assembled in London to plan Operation Torch, many of whose members accompanied him when he subsequently assumed command of the forces that were to invade North Africa. The Allied Forces Headquarters was criticized for its large size, and the difficulties of matching two different staff systems and nationalities should not be underestimated. But it performed adequately and matured as the operation progressed.

The lessons of Operations Torch, Husky (the invasion of Sicily), and the subsequent invasion of Italy all contributed to the final Allied command and staff structures for Overlord. Command of Allied air forces, especially the

strategic bombers supporting the theater operation, had been problematic, and the appointment of Air Marshal Tedder as both Eisenhower's deputy and Commander-in-Chief of Allied Air Forces ameliorated the problem. Eisenhower also decided that the land component command should reside with him and not with a separate commander and staff. Lieutenant General Morgan and his COSSAC²⁴ staff, charged with the planning of Overlord in 1943, had to operate under a system of "opposite numbers" until General Eisenhower arrived in January 1944 and insisted on an integrated combined staff. Thus was the Supreme Headquarters Allied Expeditionary Forces (SHAEP) born. SHAEP was initially a combined *army* staff, with joint input from colocated component planning staffs, and occasionally from the full air and naval component staffs. Following the invasion, an air staff was assembled to support Air Marshal Tedder as the Commander-in-Chief of Allied air forces.

It was indeed fortunate for the Allied cause that General Eisenhower was selected by General Marshall, and subsequently approved by the political leaders of the United States and Britain, to lead Allied forces in Europe. By the manner in which he discharged his duties he became the epitome of the successful supreme allied commander. It is hard to imagine either Patton or Montgomery in such an appointment.

Eisenhower described his concept of allied command and the requisite characteristics of the commander in a letter to Admiral Mountbatten on the latter's notification that he was to assume command of the Southeast Asia Command:

The written basis for allied unity of command is found in directives issued by the Combined Chiefs of Staff. The true basis lies in the earnest cooperation of the senior officers assigned to an allied theater. Since cooperation, in turn, implies such things as selflessness, devotion to a common cause, generosity in attitude, and mutual confidence, it is easy to see that actual unity in an allied command depends directly upon the individuals in the field. This is true if for no other reason than no commander of an allied force can be given complete administrative and disciplinary powers over the whole command. It will therefore never be possible to say the problem of establishing unity in any allied command is ever completely solved. This problem involves the human equation and must be met day by day. Patience, tolerance, frankness, absolute honesty in all dealings, particularly with all persons of the opposite nationality, and firmness, are absolutely essential.²⁵

General Eisenhower's influence was felt not only in the manner in which he conducted himself as the Supreme Allied Commander but also in Allied Forces Headquarters in the Mediterranean and later at SHAEP in northwest Europe. With the exception of having his own chief of staff, he placed no weight on any particular structure or organizational method within the traditional staff framework, which he regarded as mere detail. Instead, he emphasized the characteristics required of good staff officers: confidence, logic, and loyalty.

This necessarily brief examination of World War II coalition command can be summarized by reflections on allied command by two senior US Army officers. General Devers, Commander of the 6th Army Group, listed the principal problems that an allied theater commander should expect to have to confront:

- (1) Characteristic lack of clarity and firmness of directives received from the next superior combined headquarters or authority.
 - (2) The conflicting political, economic, and military problems and objectives of each of the allied powers.
 - (3) The logistical capabilities, organization, doctrines, and characteristics of each of [the] armed forces under command.
 - (4) The armament, training, and tactical doctrines of each of the armed forces under command.
 - (5) Personal intervention and exercise of a direct, personal influence to assure coordination and success in the initial phases of the mission assigned by the next higher combined authority.
- Lastly, and in the final analysis probably the most important of all:
- (6) The personalities of the senior commanders of each of the armed services of the allied powers under command, their capabilities, personal and professional habits, and their ambitions.²⁶

It is likely that each of these characteristics has influenced one or another of the coalition operations conducted since 1945. They may simply be inherent in human activities at a certain level of authority and intensity.

The other observation speaks clearly to contemporary members of NATO and participants in any coalition operation. Major General Harold R. Bull, US Army, was the Chief of the Plans Directorate in SHAEF. He noted, "I can truly testify from my own experience that solving the problem of combined command in war is simpler and more expeditious than solving the joint problems in our national defense establishment in peace." He amplified that insight in words that are remarkably fresh:

I can conceive of no scheme which will work unless three actions are taken: First, firm political decisions made and clear objectives set by national leaders above the theater commander. That is to ensure unity of purpose. That I think is awfully important. If your international high level decisions are to be made at theater level, I'd say, "God help us in unity of purpose"; [second] Unity of Command to ensure unquestioned and timely execution of directives; [third] Staff integration with mutual respect and confidence in combined staffs to ensure sound development of plans and directives fully representing the interests of the major elements of the command.²⁷

World War II saw the development of coalition warfare to a peak never passed before or since. The principle of unity of purpose at the grand strategic level, reflected by unity of command within specified theaters, had been firmly established. The task of the great World War II coalition was

certainly made simpler by the two principal Allies speaking the same language and sharing a common culture and common values. (Complications arose later with the integration of French forces in General Devers' 6th Army Group.) One must recall, too, that commanders had in many cases been promoted rapidly up the ranks, reflecting the needs of the large wartime armies, and the staffs were generally composed of officers with limited troop and staff experience. Despite these potential inhibitors, the Allies made the best of things in the interest of defeating the Axis powers.

Applications

Coalition operations since World War II have involved the United States and a wide range of allied and friendly states; none has achieved a command relationship that matched the level of sophistication and integration that the Allies had achieved by 1945.

- The Korean War, the first major commitment of US forces after 1945, was fought under the auspices of the UN, but the command structure at theater level reflected the domination and size of commitment by the United States. There were numerous national contingents, but the United States exercised the command function as lead nation. Given the speed with which the operation had to be established, it was inevitable that a lead nation concept was adopted.

- In the Vietnam War, with the exception of the Australian and New Zealand forces which were in effect under the operational control of the United States, the command structure seemed to take a step back in time to World War I, prior to the Beauvais Agreement. And this despite the concentration of the warfighting in the US and South Vietnamese forces. A parallel command structure was adopted which was even stretched to include the South Koreans. This command relationship was criticized by General Bruce Palmer, Jr., in his book *The 25 Year War*:

In retrospect I believe that the advantages of having US commanders exercise operational control over other national forces, especially South Vietnamese, would have far outweighed the drawbacks, for the fact is that we did not generate our best combined efforts. As a minimum we should have insisted on having a substantive voice in the selection, promotion, and removal of key South Vietnamese commanders.²⁸

- The operation to liberate Kuwait, Operation Desert Storm, achieved a marked improvement on the command arrangements for Vietnam, but still did not achieve unity of command. Instead, the theater commander, CINCENT, strove to achieve unity of purpose and unity of effort. An interesting hybrid command relationship was established which was both parallel and lead nation, the United States leading the forces of the Western nations, and Saudi Arabia leading those of the Arab nations. However, even then it was abundantly clear

to all that the United States was in the lead for both campaign plan development and conduct of the campaign once hostilities began.

Given the absence of unity of command in the 1990-91 Gulf War, a new structure was born. The coalition coordination, communications, and integration center (C3IC) had neither overall command authority nor a direct role in the campaign planning process. However, it did formalize coordination and liaison arrangements between the leaders and staffs of the two lead nations, the United States and Saudi Arabia. One author described the function of the C3IC as follows: "It is important to note that the C3IC did not command any units. The C3IC advised the separate commanders and their staffs, and it transmitted orders of one national command chain to the other. The C3IC integrated the effort of both parties into a unity of effort, not a unity of command."²⁹ While these arrangements suited the particular circumstances of Desert Storm, it should not be assumed that they will be relevant in future coalition operations.

The Desert Storm coalition enjoyed overwhelming force and the objective was limited and clearly achievable in a short period of time, so the shortfalls in such an arrangement, if there were to be any, had little opportunity to be exposed. Operations involving greater risk, increased opportunities for deviation from the agreed mission, or longer duration could well see coalition partners seeking greater representation among the headquarters staff charged with planning the operation they would be expected to conduct. The C3IC does not fill that need. But with that desire from coalition partners for greater representation on the staff should come a parallel demand from the coalition leader for greater unity of command.

Doctrinal Implications

With the renewed interest in coalition warfare, it is useful to look at current US doctrine for command and control of coalition operations at the theater level. The assessment covers mode of command, the integration of staffs, and the idea of unity of command as a desirable feature of coalition operations, including its application to service components.

- *Mode of command.* US joint publications³⁰ propose three possible command arrangements for coalition operations: parallel command, lead nation command, or the combination of the two that was used in Operation Desert Storm. They offer no guidance as to which may be preferable, nor do they note the strengths and weaknesses of each mode of command. In those publications, furthermore, the principle of unity of command is more honored in the breach than the observance.

- ◆ *Parallel command.* US Joint Publication 3-0 notes that parallel command is the "simplest to organize and often the organization of choice."³¹ It emphasizes achieving unity of effort, since it seems to assume that, by definition, unity of command is not achievable under a parallel command concept. The Army's FM 100-8, *The Army in Multinational Operations*, suggests

that parallel command is often the organization of choice, but notes that "while other command arrangements emerge as the coalition matures, the parallel model is often the starting point," a sensible, if uninspiring, conclusion.³²

- ♦ *Lead nation command.* US Joint Publication 3-16 states that a lead nation command arrangement will achieve unity of command, though how it might do so is not explained. It notes that "unity of command established early on facilitates unity of effort. However, nations are generally reluctant to grant extensive control of their forces to one lead nation."³³ It is unclear whether this comment is based on recent and regular experience or is mere supposition. This observation, while perhaps true in the abstract, could readily change if a coalition were faced with a truly formidable threat to a national interest vital to most, if not all, of its members.

- ♦ *Parallel and lead nation.* Operation Desert Storm provides a recent example of this option. Here, as described earlier, the coalition was split into two blocks, with the United States leading the Western nations and Saudi Arabia leading the Arabs. Saddam Hussein tried to exploit the most evident weakness in this arrangement through his SCUD attacks on Israel. Had he succeeded in provoking a response from the Israelis, it is conceivable that the coalition command arrangements might have been sufficiently disrupted to have affected the outcome of the war.

- *Integration of staffs.* The historical examples suggest that full integration of staffs, regardless of the difficulties such a decision entails, is a prerequisite to true unity of command. Joint Pub 3-0 observes that lead nation command "is characterized by some integration of staffs. The composition of staffs is determined by the coalition leadership." It goes so far as to suggest augmenting the headquarters staff with representatives of the participating coalition members, but it does not propose full integration.

- *Unity of command.* US Joint Publication 3-0, in its section on multinational operations, discusses at some length the concept of unity of effort, but does not even mention unity of command, despite the latter being a US principle of war. It continues later: "The purpose of unity of command is to ensure unity of effort under one responsible commander for every objective. Unity of command means all forces operate under a single commander with the requisite authority to direct all forces employed in pursuit of a common purpose."³⁴ The joint doctrine cited to this point suggests that without a threat to vital national interests, the perceived surrender of sovereignty associated with unity of command may be an unpalatable option for some political leaders. But these same leaders are willing participants in the coalition, seeking a common objective and prepared, if necessary, to sacrifice the lives of their service men and women.

The examples from World War II show that coalition unity of command can be very constrained; General Marshall's comments on General Wavell related to command of ABDACOM illustrate a pragmatic approach to

“Despite these lessons, we appear to have surrendered too easily the principle of unity of command and the integrated command structures that flow naturally from it.”

responding to national constraints on a coalition commander. Furthermore, as Eisenhower and others noted, the success of Allied unity of command in World War II rested not so much on regulation as on mutual confidence, which admittedly took time to develop. Today, however, those whom the United States would be most likely to seek as coalition partners share NATO membership or association with NATO norms through the Partnership for Peace, recent operations, and multinational exercises. These are the ideal conditions under which to develop the mutual understanding and confidence that appealed to senior World War II leaders as the secret of true unity of command exercised through a fully integrated combined (and joint) staff.

A coalition commander has always had to operate within constraints of one sort or another. Providing that these are made clear to him from the outset by contributing nations, he should in general be able to operate successfully despite the disadvantages of the constraints. A US joint task force commander is no different in having to operate within constraints; whether imposed by existing doctrine (for example, no integration of logistics) by the joint force commander, or indeed Rules of Engagement, it is a matter of degree.

Hard-won experience indicates the importance of unity of command in a coalition operation. The concept has been expressed as follows: “The fundamental purpose of combined military command is to direct the massed military effort of a coalition of nations toward the accomplishment of commonly accepted objectives in the areas for which such a command has been designated.”³⁵ Coalition unity of command requires there to be one person in command, to whom coalition partners owe unswerving obedience, *but within the constraints established for their employment*. How else can national political and military leaders expect to create conditions appropriate to success in conflicts against determined enemies? Has US doctrine dismissed too quickly the principle of unity of command at the theater level in multinational operations in favor of the less demanding, but higher risk, unity of effort? It is of note that the most recent coalition operation, IFOR in Bosnia, has adhered to the principle of unity of command. While it could be argued that this is a NATO operation, it is in fact a coalition with NATO providing the command and control. Of the 27 nations participating, only 12, a significant minority, are

members of NATO's integrated military structure. Of equal significance, the Russians accepted unity of command as a fundamental pillar of the operation.

There remains to be considered the issue of command arrangements within the service components of a coalition. These will be different within each component, as forces that are contributed to a coalition vary in their size, complexity, and familiarity with the concept of unity of command.

- The ground component invariably has been the most difficult to integrate, because doctrinal and equipment differences affect the lowest echelons of command in all armies. In World War II, the Allies did not plan to integrate forces below corps level, although divisions were exchanged among national commands occasionally for a short duration. In Korea many nations sent battalion task forces to assist the US and South Korean forces. These organizations had to be integrated into US regimental combat teams, often at significant cost to the United States, since the integrated units were inadequately supported logistically. Following the debacle at the Imjin River, the UK withdrew its brigade from US divisional command and together with other Commonwealth forces established the Commonwealth Division. Until recently in NATO, integration did not occur below division level, but this policy reflected the employment of heavy divisions in high-intensity operations in Western Europe. In low-intensity conflict, wherever it may occur, soldiers may not even discharge their basic load of ammunition during a six-month assignment. Such operations may therefore offer greater scope for integrating battalions within a multinational brigade.

- Naval forces have in many respects achieved a level of integration unmatched among the services. Most Western navies subscribe to the concept of the composite warfare commander, whereby responsibility is delegated to a specific commander in a task group for a particular discipline, such as anti-surface warfare or anti-aircraft warfare. This principle has allowed the assembly of multinational task groups as seen in the NATO Standing Naval Forces, in the Gulf War, and in operations in the Adriatic seeking to enforce the embargo against Serbia. In addition, as a result of the larger NATO navies routinely conducting exercises with many other navies during their worldwide deployments, NATO doctrine and procedures have become almost the common currency in multinational maritime operations. Command arrangements for naval operations are also simplified to an extent by the limited number of ships involved in them, and by the fact that each ship is a self-contained unit, albeit with a significant logistic liability.

- Unity of air effort is best achieved when command and control are exercised from the highest practicable level by a designated theater commander.³⁶ The success of the joint force air component commander (JFACC) concept during Desert Storm has proved a system that is capable of commanding an air operation whatever the aircraft's origin. The JFACC concept is capable of employing any aircraft that is offered for tasking provided that its

characteristics match the requirements of the planned missions. As with the naval component, NATO procedures have again provided a common procedural basis for multinational operations.

Conclusions

The lessons of both World Wars have provided clear models of how coalition command should be arranged to "direct the massed military effort of a coalition of nations toward the accomplishment of commonly accepted objectives in the areas for which such a command has been designated." Unity of effort was inadequate to cope with the demands of the German offensives in spring 1918 and summer 1940. Unity of command and integrated staffs were at the heart of the successful Allied commands in World War II. Command structures and relationships to support unity of command must be established from the outset of campaign planning. They are not easily constructed under the pressure of operational reverses.

Yet despite these lessons, we appear to have surrendered too easily the principle of unity of command and the integrated command structures that flow naturally from it. Regrettably, Operation Desert Storm has assumed a position of role model that it ill deserves. Aspects of warfare that stress coalitions—reverses such as occurred in Somalia—did not occur during the 100 hours of ground combat. Therefore one must ask, "Is unity of command so hard to achieve?" Coalitions are accepted by many countries today as the norm for military action, since they reduce costs and convey legitimacy. Equally, they allow the sharing of the burden among those with particular skills or capabilities that other coalition members may lack. When compared with the United States and the United Kingdom in 1941, who shared a common language but little else, certainly not common doctrine or even the experience of training together, the position of many countries today is immeasurably better.

Unity of command is seen by some as a surrender of sovereignty which, unless a nation is in peril, should not be attempted. But in order to minimize their political risks, those same leaders who are concerned over sovereignty are also concerned with an efficient and timely operation and with minimum casualties. The military leader must explain to policymakers the benefits that even a constrained coalition unity of command may bring when set against these potential risks.

NATO has by default provided a common doctrine (which includes unity of command as a fundamental principle), common operating procedures, and experience of combined training and combined staffs. These standards are taken for granted among its membership; they are also permeating states who aspire to membership, especially those who have joined the Partnership for Peace. In many other countries there is commonality of equipment, while the principal Western states train the forces of other nations as well as participate in exercises with them. These circumstances all contribute toward the potential

cohesion of coalitions, the bedrock of which is trust. This was the strength of Allied unity of command in World War II. Should it not contribute equally today, in supporting the principle of unity of command for coalition warfare?

NOTES

1. Joint Staff, *Doctrine for Joint Operations*, Joint Pub 3-0 (Washington: Joint Staff, 1 February 1995), p. VI-1: Alliances and coalitions are defined as follows: a. *Alliance*. An alliance is a result of formal agreements between two or more nations for broad, long-term objectives. b. *Coalition*. A coalition is an ad hoc arrangement between two or more nations for common action.
2. The White House, *A National Security Strategy of Engagement and Enlargement* (Washington: The White House, February 1995). Hereafter NSS.
3. Joint Chiefs of Staff, *National Military Strategy of the United States of America 1995: A Strategy of Flexible and Selective Engagement* (Washington: GPO, 1995). Hereafter NMS.
4. NSS, p. ii.
5. *Ibid.*, p. 7.
6. *Ibid.*, p. 9.
7. NMS, p. 13.
8. CENTO was formed in 1959 and dissolved in 1979. Members were the UK, Iran, Pakistan, and Turkey. Although the United States was not a formal member, it had bilateral defense treaties with the latter three countries. SEATO was formed in 1954 and dissolved in 1977. Members were Australia, France, Pakistan, Philippines, Thailand, New Zealand, the UK, and the United States.
9. Joint Pub 3-0, p. VI-6.
10. John Terraine, "Lessons of Coalition War," *RUSI Journal*, 134 (Summer 1989), 57-62.
11. *Ibid.*
12. John J. Pershing, *My Experiences in the First World War*, Vol. I (rpt.; New York: Da Capo Press, 1995), p. 38.
13. *Ibid.*, p. 374.
14. *Ibid.*, p. 375.
15. *Ibid.*, p. 376.
16. Department of the Army, *The Army in Multinational Operations*, FM 100-8 (Washington: Headquarters, US Department of the Army, 11 September 1995), p. 3-8.
17. The War Department, *Strategic Planning for Coalition Warfare 1941-42*, in the series *US Army in World War II* (Washington: US Department of the Army, 1953), pp. 123-24.
18. *Ibid.*, p. 124.
19. Winston S. Churchill, Minute to the Chiefs of Staff, 24 October 1943.
20. R. M. Leighton, "Allied Unity of Command in the Second World War: a Study in Regional Military Organization," *Political Science Quarterly*, 67 (September 1952), 412.
21. *Ibid.*
22. *Ibid.*, p. 402.
23. *Ibid.*, p. 411.
24. Chief of Staff to the Supreme Allied Commander
25. Alfred D. Chandler, Jr., ed., *The Papers of Dwight D. Eisenhower: The War Years III* (Baltimore: The Johns Hopkins Univ. Press, 1970), pp. 1420-24.
26. Jacob L. Devers, "Major Problems Confronting a Theater Commander in Combined Operations," *Military Review*, 27 (October 1947), 3-4.
27. Harold R. Bull, "Combined Operational Planning," lecture to AFSC, 25 April 1949.
28. Bruce Palmer, Jr., *The 25-Year War: America's Military Role in Vietnam* (New York: Da Capo Press, 1984), p. 52.
29. Mark B. Yates, "Coalition Warfare in Desert Storm," *Military Review*, 73 (October 1993), 48.
30. Joint Pub 3-0, p. VI-1; also, Joint Staff, *Joint Doctrine for Multinational Operations*, Joint Pub 3-16 (Washington: Joint Staff, 1995), pp. II-10 - II-13.
31. Joint Pub 3-0, p. VI-6.
32. FM 100-8, p. 2-3.
33. Joint Pub 3-16, p. II-11.
34. Joint Pub 3-0, p. A-2.
35. Elisha O. Peckham, "Organization for Combined Military Effort," *Military Review*, 30 (November 1950), 47.
36. Joint Pub 3-16, p. IV-17.

Commentary & Reply

VETERANS OF AN EARLIER RMA

To the Editor:

I would like to add a comment on Dr. Paul F. Braim's fine essay, "An Earlier Revolution in Military Affairs," in the Autumn 1996 issue of *Parameters*. As an amateur military historian, my specific interest is the Spanish-American War or "Empire Age," so I was especially happy to get the Autumn issue and add Dr. Braim's essay to my bibliography.

The campaigns or engagements of the Spanish-American War era in Cuba, the Philippines, the Boxer Rebellion, and Central America made an important contribution to America's development of a professional military. This contribution was the cadre of professional soldiers who fought and won World War I. These officers and noncommissioned officers learned "how to soldier" as junior officers and junior enlisted men. They experienced the rigors and horrors of combat at San Juan Hill, Tarlac and Angeles and Mindinao in the Philippines, and the Boxer Rebellion battles of Tsientsin and Peking. The lessons learned carried through to Soissons and the Meuse-Argonne.

Some obvious examples of these officers include John J. Pershing, Charles P. Summerall, Ira C. Welborn, and Andre W. Brewster. Pershing, the AEF commander and later Army Chief of Staff, went up Kettle Hill in Cuba on 1 July 1898 and later fought the Moros. Summerall, the 1st US Infantry Division commander and later Army Chief of Staff, battled Filipino "bolomen," and marked the Chien Gate of the Peking Walled City on 14 August 1900. Two 9th US Infantry "MANCHU" warriors, Ira C. Welborn and Andre W. Brewster, won the Medal of Honor during the era, Welborn for his actions on San Juan Hill on 1 July 1898, and Brewster for his actions during the 13 July 1900 Battle of Tsientsin during the Boxer Rebellion. Welborn went on help establish the Army's armor corps and tank school, while Brewster was the AEF Inspector General.

Rolfe L. Hillman III
Arlington, Va.
Via the Internet

The Author Replies:

Mr. Hillman's comments on my essay uncover for our readers, and for military historiography, some excellent examples of the increasing professionalism of the officer corps of the Army at the turn of the century, adding as well to the proofs of enlightened leadership cited in my essay. However, despite these episodic experiences, and the study and research which resulted therefrom, it is apparent that the bulk of the leadership of the Army in the early 1900s was *not* prepared for the challenges of modern warfare.

Dr. Paul F. Braim

Review Essay

European Security Revisited

VICTOR GRAY

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Much has changed since the literature on European security was surveyed on these pages two years ago. The Russians and East Central Europeans have come a long way on the path to democratization and economic stability, and the threat of Russian recidivism has receded. So, too, has the push in Western Europe for a European-only defense arrangement as a free-standing alternative to NATO. The prospects for such a European Security and Defense Initiative foundered on the shoals of Bosnia and a certain loss of confidence in the European Union integration process. In the end, it was NATO, not the EU, that proved its worth in Bosnia. It now appears clear that NATO *will* survive into the next century as the primary vehicle for organizing security in Europe, albeit in greater concert politically with the Western European Union and the Organization on Security and Cooperation in Europe than originally anticipated. It is also being reorganized militarily to meet the threat that all now agree is more likely: brushfire intra-state ethnic conflicts on the southeastern fringes of the continent. The *de facto* merger in June 1996 of NATO and the WEU around the flexible and mobile Combined Joint Task Forces is indicative of the emerging consensus.

Much, however, has not changed. A security vacuum persists in East Central Europe, a vacuum that a more inward-looking EU refuses to fill politically or economically. Meanwhile, Germany, increasingly disenchanted with its partners' failure to share its concerns about the East, is moving in the direction of a more independent, more assertive foreign and defense policy. As Timothy Garton Ash predicted three years ago, Germany is being pushed increasingly in the direction of being forced to shoulder the Eastern burden alone "in Europe's name." Faced with that prospect, Germany and the East Central Europeans have increased their pressure on the United States to take the lead in moving NATO toward expansion into Poland, Hungary, and the Czech Republic.

The Clinton Administration has taken up that challenge within the Alliance and in negotiating the acquiescence of an apparently more relaxed Russia. It has not, however, expended nearly enough energy on convincing the American people that this is the way to go. It was one thing for then-Secretary of State Warren Christopher to proclaim categorically as he did in March 1996 that "NATO enlargement is on track and will happen," or for the President to say as he did in August that "NATO will expand into Eastern Europe." It is entirely another thing to convince the United States Senate, which may be asked to vote on it in 1997, of the validity of that proposition. True enough, the United States, using NATO, pulled the Europeans' chestnuts out of the fire in Bosnia with surprisingly little reaction from the American public. But that exercise, the endgame for which remains unclear, makes it all the more unlikely that the American people or Senate will want to formalize future such obligations.

As we look ahead, there seems to be considerable agreement on the main threat to European security—not Russia but ethnic turmoil—and on NATO as the appropriate response. There is also considerable agreement within Europe, including in Moscow, that continued and even expanded American involvement is needed to ensure success. But there remains precious little consensus in the United States about such American involvement. This is the central question about prospects for European security, one that despite its centrality is curiously absent from current analyses. It hovers over those analyses like a specter, fearsome because of the growing suspicion that Americans may answer the question with a resounding “No!” It is a question that must be answered in the affirmative, but getting to that answer will require a lot of work.

In *The International Politics of East Central Europe* (1996), Adrian Hyde-Price provides a primer on the area destined to be the cockpit of European security concerns in the decade ahead. He notes that the very description of the area—East Central Europe—centers not on geography but on identity, not on territory but on ethnic kinship. The concept of statehood therefore appears not so much based on Western traditions of civic society as on older notions of *Volk* derived from German romanticism. Consequently the boundaries of the state are both more fluid and less important. Given the geography of the area, dominated by the Polish plain, it could hardly be otherwise. It is a geography best described by terms such as “permeability,” “buffer,” and “borderlands.” When geographical fluidity has in the past been combined with ethnic rigidity and exclusivity, the mix has proved explosive. With the demise of Soviet-enforced “brotherhood,” it threatens to be so again. Hyde-Price’s overview of geopolitics, culture, and the roots of ethno-national conflict is superb in its concise attention to what is important.

But Hyde-Price is generally optimistic that despite its “baleful influence,” the area’s ethnically based nationalism need not lead to future conflict. “National identities,” he argues, are today “being redefined in the context of a Europe transformed by political integration and economic globalization. More than at any previous time in the long history of East Central Europe, domestic developments are intimately bound up with broader developments in Europe and the wider international system.” Much, of course, will depend on how willing the West is to integrate the area into a larger Europe and how willing Russia is to tolerate such integration. If one accepts Hyde-Price’s analysis, Russian toleration may prove greater than Western openness. The Russians, he argues, have made a virtue of the necessity of their current weakness. They have demanded only two things from their erstwhile allies: pay in dollars for previously subsidized goods, and don’t join NATO. And, as noted above, there has been a softening of the latter requirement. The response of the West, however, remains problematic.

Looked at from the internal perspective adopted by Hyde-Price, democratization is the “central domestic political task” facing the countries of the area, and membership in the European Union is their “ultimate foreign policy goal.” Thus far, however, “fierce protectionist pressures” within the EU and, it should be added, a certain loss of nerve with double-digit unemployment on the eve of the European Monetary Union, have led to “disappointed expectations” in East Central Europe. The EU, Hyde-Price correctly observes, faces a “real test of commitment.” Failure to accommodate the East Central Europeans’ desire for a “return to Europe,” particularly if accompanied by a decrease in a “strong and assertive US presence in Europe,” can only lead to the growth of Germany as a benign hegemon in the neighborhood. The dangers in such a development are obvious, particularly given the still-ambivalent relations be-

tween Germany and its eastern neighbors, especially the Czech Republic. A more independent-minded Germany could cripple European integration and raise warning signals in Russia, all of which would leave the East Central Europeans once again to fend for themselves between powerful and suspicious neighbors. Thus, Hyde-Price concludes, Germany's continued integration in the EU and NATO remains the *sine qua non* of European security. And that integration will more and more depend on the EU's willingness and, to a lesser degree, NATO's, to integrate East Central Europe.

NATO's Eastern Dilemmas (1994) edited by David G. Haglund, S. Neil MacFarlane, and Joel J. Sokolsky of Canada's Centre for International Relations, tackles NATO's response to this challenge from the internal perspective of the West. The essays, in three sections, describe the nature of the Eastern challenge, Western interests, and the institutional adaptations to the new environment. It is the sort of organic approach of challenge and response that is far preferable to treatises on "security architecture" that too often try to squeeze round problems into square institutional holes. Thus, as the editors stress in their opening essay, the purpose of the book is not to discuss "prospects for NATO" but rather "prospects for NATO in dealing with its new security environment."

Haglund and his colleagues argue that in the new environment, collective defense, the initial rationale for NATO, is obsolete, and that consideration should be given to a broader collective security alternative. They immediately point to two conceptual problems: collective security concerns inter-state relations rather than the sort of intra-state domestic strife so prevalent today, and it presupposes not just a community of states but a community of values. The latter arguably exists in NATO and Western Europe but hardly at all in Europe as a whole. They conclude, therefore, that at least for the immediate future, NATO's response to its eastern dilemma will take the form of ad hoc operations as, for example, the "UN's iron fist" as a peacekeeper in European areas of instability such as the former Yugoslavia.

They note, however, that NATO is on dangerous new ground in undertaking such tasks. "Instability" is an insufficient replacement for the unifying impulse of a common threat; choosing sides in conflicts in Eastern Europe could well give rise to unacceptable intra-Alliance strains. Second, NATO has never before had to deal with the failure of deterrence as it has had to in Bosnia. This poses yet another dilemma: failure to act in such situations threatens Alliance credibility; acting threatens escalation. And, they insist, such action *must* include the United States; otherwise, they ask, why not rely on just the WEU? Fortunately, this conundrum was eliminated by the amalgamation of NATO and WEU tasks and responsibilities at the June 1996 NATO Summit.

Haglund and company conclude that collective defense is "difficult to defend," collective security "appears unattainable," and NATO peacekeeping is "fraught with problems" for Alliance cohesion. They propose that NATO content itself with *supporting* UN peacekeeping operations designed to contain conflicts within areas removed from member states. This would seem, at least implicitly, to rule out NATO expansion to those East Central European states closer to areas of ongoing conflict—e.g., Hungary, which borders Serbia—and begs the question of what is meant by "support." It is, moreover, increasingly doubtful whether the American public will continue to abide truly robust support—i.e., American troops on the ground—for UN-directed peacekeeping. For all these reasons, one must conclude that the authors' proposal is too modest to be useful. However, the success to date in Bosnia and the June 1996 NATO Summit action vis-à-vis the WEU demonstrate that NATO

is evolving very rapidly toward a more robust peacekeeping capability of its own. Given continued success in Bosnia and continued commitment by our European allies, it may be the sort of organic development that would win American public support. One would then have to ask whether collective security in Europe would remain as "unattainable" as the editors of this volume concluded two short years ago.

Most of the other essays in *Eastern Dilemmas*, while sound and interesting, add little to the "Whither NATO?" debate. There are three exceptions; those covering the United States, Germany, and France. The essay on US interests by Lieutenant Colonel Kevin Donovan, USAF, is especially worth reading, because it is one of the few in all the literature that asks the defining question "Should the United States care?" Donovan's answer is "Yes!" He correctly observes that "the consequences of volatile nationalism may create conditions that place the vital interests of America's European allies at risk." The perceived "righteousness" of the cause is relegated to the category as a "motivating force" for action, albeit a "powerful" one. Concerning US capabilities to do anything "useful" about such conflicts, Donovan concludes that they are considerable but constrained by an attenuation of interests and the reluctance of the American public to countenance a "return of body bags carrying America's young." In this reiteration of a fact of life now paramount in any President's consideration of the commitment of American force, one cannot but hear echoes of the Powell/Weinberger Doctrine. Donovan is right to conclude that the willingness of the United States to respond will remain "limited and highly contingent on the nature of the conflict." Encouraged and impressed by success, Americans might develop the will to support interventions in the defense of interests less than vital.

The outlines of that debate are clearly and concisely summarized by the editors in their concluding discussion of NATO's dilemmas about nuclear weapons, internal divisions in the Alliance, and an inability to agree on the nature of the threats from the East. They insist, however, that the security situation of today is the "best it has been in the 20th century." "Operating from a favorable security environment," they add, "NATO might appear to have the luxury of choice." And their choice? The authors, somewhat presciently (given the June 1996 Summit) suggest a new version of flexible response, a palette of capabilities to choose from in addressing an equally diverse palette of contingencies. It is a conclusion that is both optimistic and realistic.

While *NATO's Eastern Dilemmas* focused on the West, Professor Regina Cowen Karp of Old Dominion University has edited a collection that looks within Eastern Europe and the former Soviet Union. *Central and Eastern Europe: The Challenge of Transition* (1993) does so very broadly, covering not just the security but also the social, economic, and political dimensions of transition in a series of essays by an impressive array of experts.

Karp notes in her introduction that the end of the Cold War gave Europe a chance "to re-create itself, to cast aside decades of division and ideological struggle" but quickly adds that this won't happen. We are, she argues, in a transitional period of geopolitical upheaval—neither peaceful nor totally conflictual—marked by the rise of ethnic conflict which has the "potential to develop into a security problem of the first order." She suggests that not enough "credit" has been given to the role of the Soviet Union in keeping a lid on such conflict; she also posits that there can be no return to that Russian *Ordnungsmacht*. And because the internal organizing efforts within Eastern Europe are insufficient, the Eastern Europeans are left with NATO/EU

membership as their "strategic goal." Like Hyde-Price, however, she concludes that the response of the West is "not encouraging."

Karp is perhaps overly optimistic in two respects: when she asserts that Germany, surrounded by friends, has "never been more assured than at present" of its physical security, and when she concludes that *de facto* unification of Europe has been achieved. She is correct, however, in her assessments that security depends more on stable political relationships than on a stable military balance, and that there is a synergistic relationship between internal and external security and a need, given the importance of Eastern Europe, for the EU to widen and deepen simultaneously. Against this background, she posits five options for a "new security order" in Europe. The first is the reemergence of a new balancing of alliances, with the Eastern Europeans "naturally" aligning with Russia. The second is a "re-nationalization" of defense, something she fears is already happening in Germany, France, and Britain as NATO "lingers on as an increasingly less relevant relic." The third is a new "concert of great powers." The fourth, collective security, is the only "truly pan-European path to security" but a goal that, while desirable, will remain unachievable. Finally, Karp contends that a continuation of the current "collective incrementalism," with all the uncertainty that entails, is by far the most likely outcome of changes already under way.

Most of *Transition's* authors take country-specific looks at the prospects for security. Those on the three countries of East Central Europe—Poland, Hungary, and the Czech Republic, the most likely candidates for NATO expansion—are the most rewarding.

The outgrowth of an April 1994 conference at Kent State's Lemnitzer Center, *NATO in the Post-Cold War Era: Does It Have a Future?* (1995) presents the usual hodgepodge of perspectives, edited by Kent State professors S. Victor Papacosma and Mary Ann Heiss. About half of the 15 essays are well worth reading. Among these are three historical assessments of NATO's first 45 years. Lawrence Kaplan's counterfactual history makes fascinating fiction with its "Fourth Reich," Soviet-German confrontation, isolated Britain, and autarchic America. In the end, however, it is just fiction—fun for the armchair strategists seized with video games replaying famous battles of yore.

Real strategists should immediately turn to his last few pages, which are devoted to a "counterfactual future": projections of a new European-only security system without NATO or America. Kaplan, Director Emeritus of the Lemnitzer Center, points out that the trouble with such European-only projections is the "turbulent aftershock" of the end of the Cold War. Faced with ethnic conflict and rampant insecurity in Eastern Europe and the specter of a possible revival of Russian imperialism, the EU alone is unable to offer the same psychological and military security as NATO. The EU's promise of Maastricht 1992 remains unfulfilled—crippled, he argues, by vacillation over Bosnia and fear of German economic domination. According to Kaplan, however, a continuation of the "transatlantic bargain," the historic source of NATO unity, is the only sure insurance against instability arising from an irredentist Russia and a unified Germany. In other words, NATO should survive because its Cold-War *raison d'être* has: keep Russia out, Germany down, and America in. But, he insists, survival will require more than a token presence in the Balkans.

In the end, Kaplan is an optimist. He sees hope in the Partnership for Peace that has provided some comfort to the Eastern Europeans, and in the growing Russian discovery that America's presence in Europe through NATO is a stabilizing force. He predicts Article 5 coverage under NATO for Poland and Hungary, placing them

outside NATO's military structure but inside its security system. Interestingly, statements from Moscow suggest this is a future that Russia might accept.

In his examination of the "Limits of Victory" over the Soviet bloc, University of Akron Professor Walter S. Hixson uses revisionist history of the Cold War to question euphoric vindications of 45 years of NATO strategy. He claims, for example, that NATO planners had sacrificed "opportunities for an even more peaceful and integrated world" on the altar of Western unity, and finds "plausibility" in the argument that "had the United States pursued negotiations in the wake of successful implementation of the Marshall Plan, liberalization may well have come sooner to Eastern Europe and the Soviet Union." One does not have to buy such arguments to understand that an irreverent review of Cold War history can be a useful exercise in ferreting out the real root cause of the conflict of interests between Russia and the West—a conflict of interests that may yet have validity in the post-Cold War era.

Steven L. Rearden's look at "NATO Strategy Past, Present, and Future" is a straightforward history of the evolution of NATO that recognizes the limitations of a straight-line extrapolation of the Alliance's past into the future. He underscores that the end of the Cold War represents an unprecedented caesura for NATO and that Western strategists now face an "almost wholly unfamiliar set of challenges"; he applauds their refreshingly rapid and robust response to those challenges.

Rearden suggests that the downsizing of Western forces has been too rapid and too deep, leaving the Alliance unable to "count on having the manpower and other available resources to cope with a lengthy conflict in the Balkans." He points to the need in this regard to maintain sufficient ready forces. He is right, of course, but such assertions beg the questions whether the Combined Joint Task Force (CJTF) meets the ready force requirement and whether, given the backdown of Serbia and its puppets in the face of a long overdue Western show of force, we need still contemplate a "lengthy conflict" in the Balkans. It is hard to disagree with Rearden when he asserts that NATO still possesses two "valuable strategic assets" that are hard to reproduce elsewhere: its command and control capabilities and its pre-positioning and lift capabilities.

Rearden acknowledges that "further refinements in military strategy" likely must "await the emergence of a new, or at least refurbished, political strategy." Meeting the new needs of peacekeeping and enlargement, not Rearden's timid either/or, requires the development of the political will to maintain sufficient ready forces and to understand that sometimes one must accept casualties in the pursuit of national interests. Ways must also be found, not just within NATO, but among NATO, the EU, the OSCE, and the United Nations, to agree on the concerting of interests and the physical resources to protect them. If there is anything we should learn from NATO's history of success in the Cold War, it is the power created by a synergy of shared values.

Disconcerted Europe: The Search for a New Security Architecture (1994), edited by Alexander Moens and Christopher Anstis of Simon Fraser University, examines the institutional framework of European security. It begins with an introduction to the panoply of overlapping, increasingly concentric European security organizations and a history of how those organizations have interacted during and since the Cold War.

As in the other books, ample attention is devoted to the interests and roles of the major Western powers. Most satisfying in this regard are Professor Charles Krupnick's dissection of American ambivalence toward a European Security and Defense Identity (ESDI) and Professor Roy Rempel's masterful discussion of the motivating factors in

German security policy. The latter is must reading for those who would understand German discomfort with the Atlanticist-ESDI debate, their felt need to be both good Atlanticists and good Europeans, and the reasons why Germany's drift from the former to the latter had already begun in the mid-1980s. Paramount among those reasons were the perceived short shrift given to German interests by the United States and NATO, particularly during the INF modernization tension, and growing doubts—shared by other Europeans—about the constancy of American commitment to extended deterrence.

In their concluding "Proposal for a New Strategy," Moens and Anstis correctly identify weakened political purpose as the "most dangerous gap" in the debate over European security. Echoing German fears, they note that the Clinton Administration is particularly "sensitive to the domestic constraints on a US military role in Europe." They do find grounds for hope in "French recognition that NATO assets (and an American role) are absolutely necessary in the management of the Bosnian crisis" and in Washington's willingness to take a more active role in that crisis. They place great stock in the 1993 Balladur Plan for a stability pact that would encourage Central and Eastern European countries to resolve ethnic conflicts and consolidate borders with the help of EU/OSCE mediation of disputes. Such a mechanism would, they argue, fill the perceived gap in political purpose and provide a rationale less threatening to Russia for the use of the more flexible capabilities of the Combined Joint Task Forces. While the "Balladur Plan"—like the Balladur government in France—is ancient history, the melding of purpose and capabilities proposed by Moen and Anstis remains a sound prescription for the future. Indeed, it seems to have been adopted at the June 1996 NATO Summit.

Finally, there is *The New European Security Disorder* (1994) by Penn State's Professor Simon Duke. It is provocative, iconoclastic, rich in factual detail, and sweeping in scope and intent. It takes issue with nearly all of the foregoing discussion, contending that other "experts," mired in old paradigms and creating new bogeymen by way of justification of "more of the same," have avoided or obscured the real security problems facing Europe. Duke is equally harsh on the leaders of the Alliance, accusing them of a lack of leadership that has led to "institutional chaos" in the security realm. Instead of producing a "network of interlocking institutions," they have allowed the emergence willy nilly of a new security architecture "characterized by overlapping responsibilities which may lead either to paralysis as each waits for the other to respond, or to institutional turf battles." And what is Duke's prescription? It is a gradual phasing out of NATO and its replacement by a pan-European security structure centered around the OSCE that "stretches not just geographically but functionally beyond any current arrangement."

One is inclined to dismiss Duke's criticism and proposals as pie-in-the-sky. The detail and clarity of his analysis, however, does not allow such an escape. Duke argues, for example, that the two threats most commonly identified—"Back to the Future" recidivism in the east and the reemergence of a Muslim threat from the south—are exaggerated, perhaps deliberately so, thereby shifting attention away from the real threats of proliferation, nationalism, and migratory pressures. These, he asserts, "demand non-military responses" and a "wider-based notion of security." He also attacks concepts of power based on the state and defined solely in military terms. He agrees with Joe Nye that power today is "less coercive and less fungible" and contends that states are less relevant in an era when conflicts are more likely to be fought *within* rather than *between* states.

Duke does not shy away from the central issues of European security nor the implications of his answers, no matter how distasteful. He identifies American neo-

isolationism as a major post-Cold War development that, if unchecked, could lead to the unraveling of NATO and a re-nationalization of German security policy. He also faults the Germans and other Europeans for focusing on their own navels and not carrying their fair share of the security burden outside Europe. The nexus of these two isolationisms must be addressed if we and the Europeans are to resolve our mutual security concerns.

RAND's Ronald Asmus and F. Stephen Larrabee and Harvard's Robert Blackwill attempt to do so in a Spring 1996 *Washington Quarterly* article in which they propose a "new transatlantic bargain." Condensed to its core, that "bargain" comprises a "you scratch my back, I'll scratch yours" agreement according to which "the United States would support the enlargement of NATO to Eastern Europe and . . . participate in future peacekeeping and peace-enforcement missions" and "the allies would enter into a long-term partnership with the United States to address key dangers to Western vital interests outside Europe." One cannot fault the strategic arguments on which such an agreement rests, not the least of which is the probable inadequacy of "ad hoc" for future Gulf Wars. Neither can one dispute the authors' conclusion that the agreement would require "US leadership of the kind that created the North Atlantic Alliance in the first place," requiring, in turn, Washington's making "the transformation of NATO . . . its top security policy priority." While recognizing the need to "forge bipartisan US domestic support—especially in Congress," the authors offer little advice on how to go about this admittedly urgent task.

If this task is to be accomplished in the three- to five-year time frame posited in the article, strategists in and out of uniform will have to provide convincing answers to American voters. And our politicians, who would ensure a military force that is "second to none," will have to start making the case that sometimes there are interests which require the use of that force. Security in Europe must rank high among those interests. If we do not participate in forging that security, we cannot seriously claim the mantle of global leadership.

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Book Reviews

Lee vs. McClellan: The First Campaign. By Clayton R. Newell. Washington: Regnery Publishing, 1996. 325 pages. \$24.95. **Reviewed by Colonel Henry G. Gole, USA Ret.**

Clayton Newell's most recent book, *Lee vs. McClellan: The First Campaign*, will find an appreciative audience among soldiers, historians, and the general public. It instructs the professional soldier in campaign planning, informs the student of the American Civil War of an important but lesser-known campaign, and delights the general reader with tactical detail providing a vicarious sense of close combat in difficult terrain and unusually bad weather in the western counties of Virginia from April to December 1861.

The author successfully juggles numerous and variously shaped objects without dropping any of them: the east-west tensions in Virginia within the general North-South conflict; the personalities and professional skills of the protagonists; politics, strategy, operations, and tactics; command and control; intelligence and spying; technical developments, such as the rifled musket and McClellan's readiness to use the telegraph; steam, in the form of railroads and river shipping; and human interest. The detail is impressive and reflects scrupulous research. Even more impressive is the spinning of the yarn in a manner that permits the reader to follow the story while absorbing the details. That requires good writing, and that's what Newell gives us.

The author deftly draws a sketch of 1861 Virginia on the brink of war that includes the politics, social structure, *dramatis personae*, geography, and cultural differences that separated the egalitarian western counties from the plantation aristocracy of eastern Virginia. For years the western counties chafed under Richmond's authority, "believing that the state was run by tidewater folk for tidewater's benefit." The secession issue that took Virginia from the Union tore the state apart as western lines of communication and economic ties to Ohio and Pennsylvania proved to be stronger than the ties to the eastern slaveholders. The presence of Union troops in the western counties permitted the emergence of Union sympathizers and the eventual establishment of the state of West Virginia.

The 75-year-old leader of the US Army and hero of the Mexican War, Lieutenant General Winfield Scott, was in 1861 the only officer of any grade on either side with experience maneuvering military formations numbering more than 5000 troops. In fact, few could claim to have anything but a theoretical knowledge of maneuvering anything larger than a regiment. After all, at the end of 1860 the US Army had 16,000 officers and men, most in small packets west of the Mississippi. In 1861 both sides turned to volunteer militias. Finding willing privates would, as usual, prove easier than finding competent generals.

Expecting a short war, the initial call for troops on both sides was for three months of service. The Union quickly recognized the need for a three-year enlistment, and the Confederacy required three years or enlistment for the duration of the war. Like soldiers before and since, the adventurers of 1861 discovered that infantry combat is hard and dangerous work usually performed while one is cold, wet, hungry, and

suffering from diarrhea as confused leaders discover the differences between the parade field and the battlefield. Generally war is at its best discussing it after the event in a comfortable chair in front of a cozy fire.

Badly trained soldiers were led by politically appointed amateurs, rich in vanity but devoid of military experience. A feud made unity of command impossible as Confederate commanders John Buchanan Floyd and Henry Wise refused to cooperate in western Virginia. Both were former governors of Virginia, and both were prima donnas unwilling to subordinate their personal ambitions to accomplishment of the mission.

Initially both sides took to the field to protect their respective capitals. Later each side asked, What now? McClellan answered the question first. "[He] identified the strategic objective in May 1861 when he wrote to Lincoln that it was his intent 'to secure western Virginia to the Union.'" Attainment of military control of the western counties of Virginia would lay the foundation for the government of a state that would remain in the Union. McClellan was thinking at the strategic level from the beginning as he focused all of his attention on his campaign in western Virginia. The vulnerability of Richmond made the Confederate calculus more complex. In addition to the campaign in the western counties, Lee and his planners had to be concerned with avenues of approach to Richmond from Washington, from the Shenandoah Valley, and from the peninsula between the James and York rivers.

The most prominent figures in the first campaign, George B. McClellan and Robert E. Lee, did not meet in 1861 in western Virginia. McClellan was active there from May to July. His success in the west brought him to the attention of President Lincoln, and the Union disaster under Irwin McDowell at Manassas Junction on 21 July resulted in a summons to the capital. McClellan reported to the President on 26 July and the next day assumed command of the vanquished army with the task to rebuild it as quickly as possible.

Even while savoring the victory at Manassas Junction, Jefferson Davis had to address the setbacks in the west. After the war he wrote that he had asked Lee to go to western Virginia in the hope that Lee's "military skill and deserved influence over men" would reconcile the feuding commanders there. By the summer of 1861 Davis and Lee had known one another for years, and Lee enjoyed the confidence of Davis. Lee arrived in the west in July, by which time McClellan had departed. So why the title: *Lee vs. McClellan: The First Campaign*? To more accurately reflect its contents, the title and subtitle of the book should be reversed. Or call it simply, *The First Campaign*. (However, if I wanted to market *my* Civil War book, I would also put the names of Lee and McClellan up front—and I'd keep the pictures on the cover!) Newell explains that they "made the first campaign of the Civil War a battle of minds between two generals who gained their lasting reputations for actions later in the war."

The author's unequivocal evaluation of their performance in the first campaign reverses their "lasting reputations." The Federals controlled western Virginia at the end of the 1861 campaign, and McClellan enjoyed the status of a national hero. He was lauded as "the Napoleon of the Present War." His campaign was called "military workmanship by a master hand." There is every indication that he believed his press clippings, but later he would write that it "would probably have been better for me personally had my promotion been delayed for a year or more." Newell gives him high marks for organizational skills, but he notes: "It was commanding in the field that caused him problems."

Lee's reputation was at low ebb.

Lee was in danger of being written off as one of the South's great disappointments of the war. . . . The Southern press was hard on him, chastising him for his "dilly-dally, dirt digging, scientific warfare." Newspaper editors dubbed him "Granny Lee," the "Great Entrencher," and the "King of Spades."

Newell also writes that Lee

had demonstrated a remarkable ability to gain the confidence of the enlisted troops, but he had failed to assert himself as a leader of generals. . . . His habit of issuing broad orders and leaving details to subordinates had led to a series of lost opportunities as the Confederate military leaders in western Virginia delayed and bickered.

Newell charges Lee with remaining at the tactical level. "But," he adds, "the campaign in western Virginia had been a formative experience for Lee. . . . It may be that one man's failure caused him to learn from his mistakes, while the success of the other led him to overlook his weaknesses."

A final note reveals that your reviewer is a person "of a certain age" who uses a computer for efficiency but admires the look and feel of a handsome book. Clayton Newell owes a debt to his publisher for the packaging of his excellent book. The dust jacket captures the sense of the tale, the maps allow the interested reader to track the events in the narrative, the photographs of leaders are just enough and just right, and—above all—the engravings of Civil War vintage add a touch of charm and class rare in modern publishing.

On the Origins of War and the Preservation of Peace. By Donald Kagan. New York: Doubleday, 1995. 606 pages. \$30. **Reviewed by Colonel David A. Fastabend**, FM 100-5 Writing Team, School of Advanced Military Studies, US Army Command and General Staff College, Ft. Leavenworth, Kansas.

On the Origins of War is directed "to those who wish to have a clear understanding both of events in the past and of those in the future which will, in all human likelihood, happen again in the same or a similar way." These are the words of Thucydides, one of Donald Kagan's earliest predecessors in that long line of chroniclers who have examined war's origins and causes. Thucydides figures prominently in this work, and not only as a primary source for Kagan's account of the road to war in the Peloponnesus. He is also the fountainhead of Kagan's fundamental thesis that people go to war out of "honor, fear, and interest."

Professor Kagan does not discount the more prevalent, realist position that war springs from the competition for power. But he goes on to argue—compellingly, in my view—that there is "a clearer, more profound, more elegant, and comprehensive explanation of why people organized in states are moved to fight wars." Honor, fear, and interest are "that trio of motives most illuminating in understanding the origins of wars throughout history."

To demonstrate his thesis, Professor Kagan presents five intriguing case studies that span 2400 years of recorded history and a wide range of societies, cultures, and international environments. His subjects include the Peloponnesian War (431-404 B.C.), the

Second Punic War (218-201 B.C.), World War I, World War II, and an “almost-war,” the 1962 Cuban missile crisis. Professor Kagan does not aim for definitive history, but rather—in his own words—a “comparative narrative history” that presents events through the lens of honor, fear, and interest. In demonstrating the utility of a more detailed perspective than simply “power,” Kagan illuminates seemingly familiar ground with fresh insight.

Half-measures, for example, are not the policy that maintains a “free hand,” but are more often a formula for disaster. The Athenians’ halfhearted intervention against Corinth and their embargo of Megara infuriated their targets without rendering them impotent, leaving them angry and dangerous. The Romans sought a similar course, hoping to strike a happy medium between offending a growing Carthage and making a firm military commitment to Spain. Like the Athenians, they committed honor and prestige without a concomitant commitment of resources. In both cases their “middle course” confirmed their rivals’ suspicions of weakness, and disaster ensued.

Kagan asserts that “No peace keeps itself.” He suggests, “A persistent and repeated error through the ages has been the failure to understand that the preservation of peace requires active effort, planning, the expenditure of resources, and sacrifice, just as war does.” Army officers should note with interest his imperative to match a deterrence strategy with an effective, decisive capability. Both the Athenians before the Peloponnesian War and the British on the eve of this century’s world wars sought deterrence on the cheap. They rejected the cost of land warfare and emphasized their “asymmetric advantage”—their navies. But the lack of a decisive, offensive land capability gutted their deterrence strategies. Their opponents saw no risk, other than wasted effort or stalemate, to challenging the status quo.

Kagan’s account of the 1962 Cuban missile crisis will attract the most attention over the coming years. Drawing on recently declassified material, Kagan shreds the image of a brave young President Kennedy, resolving the crisis through virtue and measured toughness. In the place of Camelot, Kagan presents an inexperienced, irresolute politician whose vacillations at the Bay of Pigs and during the Berlin Wall crisis virtually invited Krushchev’s grab for prestige. Although superior military capability ultimately prevented war, fear generated unwarranted concessions that were denied and concealed from Congress, the press, and the American people. Professor Kagan has probably not heard the last on this topic.

Thucydides hoped his observations on the causes of war 2400 years ago would be “a possession for all time.” Has Donald Kagan earned a similar aspiration? Some might question his restriction to nation-state examples, or his loose, imbalanced approach that gives uneven attention to the individual case studies. Others might worry that his relentless call for peace through strength fails to directly address Paul Kennedy’s alternative thesis (*The Rise and Fall of the Great Powers*) that imperial overreach is a formula for failure. Finally, military readers who cast themselves in the “warrior” mold may be disappointed with an account that focuses not on echelons smashed or centers of gravity unhinged but on the tedious work of diplomats and politicians, the prelude to “the good part.”

These critiques pale in comparison to Kagan’s service to the field of international relations in recasting the “power” paradigm. The true professional, recognizing he serves a country committed to a strategy of deterrence, would be well advised to study Kagan’s explanation of what actually makes deterrence work. *On the Origins of War* may not be found on bookshelves 2400 years from now, but it merits a place of honor on ours for at least the next 24.

Reflections of a Radical Moderate. By Elliot Richardson. Westminster, Md.: Pantheon Books, 1996. 288 pages. \$24. **Reviewed by Colonel Zane E. Finkelstein, USA Ret.**

In 1973 an embarrassed Chancellor of a major Washington university informed the assembled audience that he was to be the commencement speaker. He is reported to have explained: "I invited the Secretary of Health, Education, and Welfare; the Secretary of Defense accepted; but the Attorney General declined."

That singular invitee, Elliot Richardson, offers in *Reflections of a Radical Moderate* a series of encouraging essays. I have chosen the word "encouraging" advisedly. These essays inspire but they do much more. They inspire with hope, confidence, and resolution. They do not explain Richardson's rapid movement through Cabinet chairs, but they do demonstrate his unquestioned competence to have held each of these plus one more.

The national quadrennial silly season ended a few months ago with 49 percent of the voting population proving, according to the other 51 percent, that character doesn't count. Secretary Richardson, on the other hand, believes that it not only counts but also is indispensable to the maintenance of a representative democracy. He reasons that the people have assigned to the government the responsibility for issues that concern us in common. We have thus entrusted to the officials of the government significant parts of our lives, those directly related to our security and well-being. Violations of this trust affect more than just the aspect of public service directly involved. These violations, Richardson asserts, put at risk the entire social contract which makes representative self-government possible. We ignore these circumstances at our peril.

Although Richardson is a former Attorney General and an experienced trial lawyer, he decries the legalistic approach to ethics in government. His code of ethics is measured by standards far above the traditional, "Would you like to read about this in *The New York Times*?" or even H. L. Mencken's, "Conscience is that inner voice which warns us that someone may be watching." Richardson portrays concepts of public service and public trust as real ideas with a real life divorced from appearances. He warns that current definitions of "conflict of interest" will ultimately ensure that anyone with relevant experience will be disqualified from jobs of consequence. Already we have massive, multimillion-dollar studies of the medical care delivery system being conducted without a significant role for doctors or care-givers. Unless this charade of legalistic protection from the appearance of evil is reversed, we will ensure in future that the more significant a decision is, the more likely it will be made by someone who knows absolutely nothing about the matter.

Ethics in government, Richardson argues, is not a "code"; it is only honesty, absolute undivided loyalty, and the exercise of one's best judgment for the benefit of those committed to his care. "Only," yes, but still a lot.

Secretary Richardson illuminates our crises of confidence by asserting that it is not the problems we currently face that are causing our disillusionment. They pale before what we have dealt collectively with in the past—civil war, famine, industrialization, global conflict, the threat of nuclear annihilation. It is not the scope of the problems, it is government's inability or unwillingness to solve them that is generating the cynicism. Since government is not a "thing" but "us," Richardson suggests that

we have an ethical obligation to solve these problems equal to and congruent with our rights and privileges of citizenship.

This former leader of a litter platoon in the 4th Infantry Division and Secretary of Defense also passionately addresses "Peace Enforcement." He approaches the subject admittedly as one of the world's "chronic hoppers" but with a discipline of thought and an understanding of the concept's necessary limitations. Nonetheless, he suggests, the extension of democracy and law will someday, somehow succeed in creating the capacity to keep the peace. The irony is that we have the capacity but lack the will. He asks for terms that stir us to action. He deplores terms that cause confusion. "Multilateral peace operations" is better than "Operations Other Than War," but not much. Richardson makes a case for extending Chapter VII of the UN Charter to encompass the problems of failed or failing states—another triumph of hope over experience.

These essays suggest that our interests have changed as much as the threat has changed. Secretary Richardson postulates a national interest that accepts "collective responsibility toward the protection and advancement of human values." The sections dealing with "blood risk" and the distribution of sacrifice add significantly to the strategic dialog. These ideas will embarrass those who seek to answer complex questions with simple slogans like "America is not the world's policeman" or "America's obligations must be equal to her talent."

Secretary Richardson's essays are a 911 call following the historical accident of pessimism in the midst of plenty. Idealism in the Wilsonian sense is alive and will make us well. *Reflections of a Radical Moderate* will not replace *On War*, *The Prince*, or even *Diplomacy* in war college curricula. If you want to command a brigade and have room in your mind's rucksack for only one book, do not replace FM 100-5. But if you are a military professional or a serious student of military affairs, this book is a must. One, in my view, cannot defend America intelligently without being intelligent about America. These carefully structured, erudite essays written with the balance of a moderate and the passion of a radical are an important contribution to that understanding.

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